THE REORGANISATION OF EDUCATION IN CHINA

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CONTENTS

PART II

THE DIFFERENT STAGES OF INSTRUCTION

CHAPTER III

CHAPTER IV

APPENDIX

INTRODUCTION

At the May 1931 session of the Council of the League of Nations, the Chinese Government asked the technical organisations of the League to collaborate in the preparation and execution of a scheme of reform. With regard to the reorganisation of public education the League contemplated, in particular, sending to China a mission[1] composed of "advisers who would assist the development of the Chinese educational system and facilitate intercourse between the centres of intellectual activity in China and abroad."

Pursuant to the decision adopted by the Council on May 19, 1931, the International Committee on Intellectual Co-operation instructed its executive organ, the International Institute of Intellectual Co-operation, to appoint a mission of experts who would visit China for the purpose of studying the present situation in regard to public education and the long traditions of culture peculiar to the ancient civilisation of China, and with a view to submitting recommendations on the most suitable procedure to be adopted to ensure a better adaptation of this educational system to present-day conditions of life.

In accordance with our definite terms of reference, we at first intended to submit two separate reports, one of which would deal with the educational system and the other with international co-operation. On examining the question more closely, it became obvious that such a distinction would be quite artificial and, further, that the collaboration between China and the other civilised countries would be determined, in each particular sphere, directly by the cultural conditions obtaining in China. We have, therefore, clearly stated our opinion in the different chapters of the present

[1] The mission was composed of Professor Carl H. Becker, of the University of Berlin, formerly Prussian Minister of Public Education; Professor M. Falski, Director of Primary Education at the Polish Ministry of Public Education; Professor P. Langevin, of the Collège de France; Professor R. H. Tawney, of the London School of Economics and Political Science; assisted by Mr. Frank P. Walters, Head of the Secretary General's Office, League of Nations. This mission was later joined in China by Baron A. Sardi, representing the International Institute of Educational Cinematography, and by M. Henri Bonnet, Director of the International Institute of Intellectual Co-operation.

report as regards the exchanges of students and teachers and the relations existing between scientific societies and institutes. In school circles, international co-operation is contingent upon the organisation of teachers' associations, which we strongly recommend. We also advocate the utilisation of travelling exhibitions of pedagogical material and equipment. Our Italian colleague, who was entrusted with a special mission to enquire into the conditions concerning the possible use of educational films in China, will present a supplementary report on this specific subject. The Director of the International Institute of Intellectual Co-operation has already submitted a separate report on what remains to be done in the matter of organisation from the technical standpoint of international co-operation. So far as we were concerned, we considered it more important to initiate this co-operation forthwith rather than embark upon theoretical arguments on the subject. And nothing could better demonstrate the results to be expected from a trusting collaboration than the present report, in which, in the broadest sense of the term, we have not only formulated our personal impressions, but have also, as will be seen later, indicated the results of the experience acquired by the heads of the Chinese education services.

We arrived in China on September 30, 1931, and remained there about three months. We started our operations by rapidly taking our bearings in the very town in which we had landed, namely Shanghai, where the Ministry of Public Education had sent its representative to meet us. We then proceeded to the headquarters of the Central Government at Nanking, where we were cordially received by the Minister for Public Education and his advisers, and where we sketched out our working programme. After visiting the most important educational establishments of Nanking and, in particular, the Central University, we continued our journey to Tientsin, where we paid brief visits to the most highly developed teaching institutions in the country. We next arrived in Peiping, where we spent practically three weeks and from where we had an opportunity of visiting the centre of the adult education movement at Ting-Hsien. We then turned south, passing through Shanghai. During the first week or so in November we were able to study the admirable schools and universities at

Hangchow, the capital of the province of Chekiang. Later we made a more detailed examination of the schools system in Greater Shanghai; we remained several days in the town of Wusih and, finally, as from the middle of November, we spent a further period of three weeks at Nanking.

In the course of the previous weeks, we had endeavoured to see and study as much as possible; at Nanking we began a systematic study of the documentation placed at our disposal by the Government and we had several interviews and exhaustive discussions with the Minister. From Nanking, we also visited Chinkiang, the capital of the province of Kiangsu; this visit, like all the others undertaken by the mission, had been prepared with the utmost care by the authorities. It was at Nanking also that we laid the foundations of this report, for we there had an opportunity of discussing the situation not only with the Ministry staff but also with the members of the Public Education Commission which had just been appointed within the Economic Council. Our journey ended at Shanghai in the middle of December, after a visit to the town of Soochow, noted for its great intellectual and cultural activity. Only one member of our mission was able to proceed south, where he studied, more particularly, the teaching organisation at Canton. He was received with the same cordiality by the local officials as had been shown to us in the north.

The shortness of the time at our disposal prevented us from extending our investigations as widely as we should have desired. Political and economic conditions differ greatly in different parts of China; educational achievements and possibilities necessarily vary with them; and we recognise that the observations made by us in person are an insufficient basis for comprehensive generalisations. We thought it wiser, however, to concentrate our attention upon the educational conditions obtaining in those regions which we could hope to study with some thoroughness, and to rely for information as to the circumstances of others upon the help of witnesses conversant with them, rather than to attempt to make a survey, which must necessarily have been superficial, of a mere extensive area. In every country there are some districts which, owing to their natural resources, their previous history, the character of their population, or their contacts with the rest of the

world, are especially fitted to take the lead, and to set the example which their less-favoured neighbours will in time follow. The important thing, it seemed to us, is not that all parts of a nation should advance at an equal pace, which, however desirable, is hardly to be expected, but that the example set should be at once judicious and inspiring, and that, where progress takes place, it should take place on sound lines.

We have been deeply impressed by the remarkable degree of agreement obtaining among Chinese educationalists and public men both as to the urgency of educational reform and as to the general lines upon which such reform should proceed. Those who, often amid difficulties and discouragements, are labouring to promote it, need not feel that they are isolated individuals. They represent a large and growing body of opinion, which needs only to act together in order to be irresistible. To them and to all others who have aided us with their counsel, we offer our warmest thanks. We are indebted, in particular, to the President and Officials of the Ministry of Education, to the Provincial Education Departments of the Provinces of Chekiang, Kiangsu and Hopei; to the Municipal Education Bureaus of the cities of Tientsin, Peiping, Hangchow, Shanghai and Canton; to the Principals and Staffs of various Universities, Colleges and Schools, both public and private, to the authorities of the Adult Education Movement, Ting-Hsien and Wusih, to individual educationalists too numerous to mention, for their kindness in putting their time and knowledge at our service. While we alone, of course, are responsible for the opinions expressed in the following pages, it would have been impossible for us to carry through our work without their generous assistance. We cannot expect that they, or other of our readers, will endorse all our recommendations. We venture to hope, however, that they may have the patience to study our Report as a whole and, before dissenting from any particular proposal, to examine it in relation to the general scheme of which it is a part.

For the foregoing reasons, we think it important to call special attention to the following considerations:

(1) The ideas set forth above and our judgments thereon are not based exclusively on our personal observations but, to a very great extent, on the views expressed by Chinese

experts. We have, however, made no statement which was not confirmed by our own observations.

(2) Although we belong to different countries and our training was in the case of each one of us different from all the others, we were unanimous in our conclusions regarding all the essential points. This Report, therefore, is not a compromise between various opinions; we jointly and unanimously drew up the conclusions reached. The drafting of the different chapters naturally devolved upon the several members of our mission, but we have abstained from mentioning by whom each chapter was written, for although the final text is the work of one person, it was during our joint labours lasting for several weeks that we agreed upon the conclusions given in each chapter. Consequently, even if from the point of view of style our Report does not seem to be very uniform, we hope that, fundamentally, it will appear as homogeneous as is materially possible for a work prepared by four authors. We must also apologise for the fact that certain ideas which seemed to us to be of especial importance are dealt with repeatedly. This was quite unavoidable as certain given aspects of the Chinese system of education had to be discussed from the standpoint of a definite conception of the science of teaching. In this connection, we would call attention to the fact that the universities play a very special part in the transformation that is taking place in Chinese life and that for this reason we deemed it necessary to state our proposals for reform in the chapter devoted to the universities. On the other hand, our proposals concerning the reorganisation of the schools, in the strict sense, will be found in Part I, Chapters IV–XI.

When drafting a report of this kind, certain statistical data must necessarily be taken into account. We naturally cannot say to what extent the Chinese demographical statistics may be regarded as reliable. We did not consider it part of our task to undertake the numerous investigations required for the compilation of new statistics. We therefore simply based ourselves on the demographical statistics furnished to us by the Chinese Government; in these statistics the population of China is estimated at 460 millions. The figures which we reproduce regarding the educational system are based exclusively on official data, the accuracy of which we were not in a position to verify.

We venture, in subsequent paragraphs of our Report, to make some criticisms—occasionally, perhaps, somewhat drastic criticisms—upon certain features of the present educational system of China. We do not apologise for making them, for the majority of them have already been formulated by Chinese educationalists, and the Chinese colleagues who have aided us to reach our conclusions have a right to demand that we should state them with candour. It is with the greatest satisfaction that we take this opportunity of recording at this point our strong sense of the educational progress made since the Revolution, and our admiration for the energy shown in coping with the difficulties by which progress has been impeded. China has been the victim, for more than a generation, of a combination of misfortunes on which it is needless for us to insist. To have maintained, in the midst of civil disorder, international complications, sharp financial strains, and the recurrent calamities of flood and drought, the conviction that the education of the rising generation is among the principal concerns of a civilised society, and to have laboured, as circumstances have allowed, to promote its development, is an achievement of which not all Western Governments have shown themselves capable. But criticism is necessary, and we are in accordance with Chinese tradition if we quote from Mencius the wonderful words: "Since I see the truth first, I shall impart it to the people" (*The Works of Mencius*, Book V, Part I, Chapter VII, Section 5, following Moulin Chang—*A Study in Chinese Principles of Education* (Shanghai, 1925), p. 10).

PART I

GENERAL CONSIDERATIONS

CHAPTER I

THE EDUCATIONAL SITUATION IN CHINA

THE last years have shown great progress in the domain of education in China: the number of schools as well as of teachers and pupils increases yearly, new scientific institutions are built, programmes and methods of teaching are modernised. At the same time, however, one danger is to be observed, namely, that schools and institutions are developing rather as independent organisms modelled on the forms and ideology of private education instead of being included in an organised system of public education related to immediate social problems.

This danger is related to the insufficient strength of public spirit in China in general and to factors concerning the organisation of education as such.

Above all, Chinese educational tradition plays an important rôle, chiefly through schools established by separate families or groups of families for the needs of their own children, not passing, as regards organisation and spirit, beyond the narrow bounds of interest and private financial considerations.

Small schools of more public character, established sometimes by larger villages or towns for poor children not having a family school, have, in general, not been numerous in the past and were just as narrow in idea, whilst hampered by a painful poverty. The studies were chiefly confined to acquiring the complicated art of writing in the almost uncomprehensible language of Old China and the traditional teachings of former national sages, a knowledge which was little adapted to prepare children for the urgent demands of present-day life.

During long centuries the State did not so much care for the organisation of education as reserve the right of entry for an old-fashioned examination giving access to public offices, thus strengthening the old system of teaching and filling public offices with bookish people incapable of understanding the practical needs of everyday life and still less the enormous changes in modern-world conceptions, the comprehension of which is indispensable to the economic

and political independence of the country as well as to the speedy intellectual emancipation of its citizens.

New currents that have affected the Chinese education system within the last decades, chiefly from America, from Japan, and to a certain degree from Europe (France, Germany, England), and which have been introduced by new educational institutions, although bringing in many modern cultural values, have not changed the unrelated character of the present schools system or hastened its essential reoganisation into a proper unity. On the contrary, circumstances have led to the introduction into China from abroad of models of individual schools, often of expensive character and of relatively high standard by which the conception of school as an independent organism of non-social programme, has only been strengthened.

One of the first types of such schools in China was the mission school—the American Protestant mission schools being especially richly endowed and zealously directed. The early missions could not undertake to deal with the problem of general education or aim immediately at the elevation of the entire mass of the Chinese people. They occupied themselves with establishing unrelated schools, designed not so much for the people as for privileged individuals. The missions directed their chief attention towards the establishment of secondary and higher schools. Not many primary schools were established, and, moreover, as appears from the reports, it was children belonging to the higher and middle classes who were instructed in them. The effect was rather to create a social élite, a governing intelligentsia class.

A fortunate stimulus to the spread of schools and institutes of a higher standard, modelled on foreign patterns, has been the destination of a part of the "Boxer indemnity" to educational purposes. The fund has been confided to the hands of mixed Chinese-foreign Commissions (*v.* p. 53). Thanks to it, many valuable educational institutes have been established, and a series of richly endowed universities has been founded. But no initiative has been taken with a view to the wholesale organising of public education in China. Another very important factor tending to maintain the existing lack of organisation has been the Chinese youth that has received a university education abroad and returned

to its native country inspired by ideas of institutions that have arisen out of the circumstances of European education, and itself got accustomed to a manner and standard of life greatly differing from those obtaining in China. The tendency of these former students of foreign universities to try to engraft models of these institutions on to the sensitive plant of their own educational system as soon as they have gained position and influence in the country is quite natural, and this Chinese intelligentsia which has broken away from the masses of the people is firmly convinced that this is the most appropriate solution of the problem of education for the country. Nevertheless, the revolutionary movement has created certain conditions for the development of public education in China, and the introduction into the schools of the present-day language has greatly helped to make education accessible to the lower levels of the population. But the needs of the masses have not been sufficiently stressed, and the organisation of public life has not gained enough strength to enable a union of the whole movement on the field of education into a more organised system, based on a wide social foundation, to be undertaken.

The result of all these conditions is the creation and development in China of schools and educational institutions not conducted on a strict system and not suitable to the needs and conditions of the country. The result is a favouring of schools of higher standard, generally rising far above the condition of the impoverished country whilst the primary and vocational instruction most indispensable for the people is neglected. There is also the lack of social ideals within the schools, an abstract kind of instruction not directly connected with surrounding life and the necessities of the country's rebirth usually obtaining. This creates an enormous abyss between the masses of the Chinese people, plunged in illiteracy, and not understanding the needs of their country, and the intelligentsia educated in luxurious schools and indifferent to the wants of the masses. Such an educational system is highly injurious to the masses and dangerous, because a carefully educated social élite not closely connected with general needs may become transformed into an unproductive clique enclosed within the narrow bounds of its own interests.

The Chinese community is at present faced with great

problems: national and social, the acquisition of economic independence and the increasing of general prosperity and culture. For the quick and successful realisation of these aims education may be a powerful weapon, but it must be organised purposefully in the public interest. The carrying out of this reconstruction is the very great task with which the present State authorities find themselves confronted, and for which they are responsible, above all the educational authorities and the whole of present-day Chinese intelligentsia.

CHAPTER II

NATIONAL EDUCATION AND FOREIGN INFLUENCES

FROM a general survey of the system of public education in China, and especially of the reforms introduced in the course of the last ten years, it will be readily understood that one of the main problems lies in the attitude behind this system, *vis-à-vis* the European, American and Japanese standard systems which serve as a basis for school reform in China.

China has not yet had time to see whether the numerous foreign systems which she has adopted with such faith and enthusiasm, and which she has endeavoured to assimilate, really meet the requirements of public education of the country as it exists to-day. A large proportion of the present Chinese secondary schools were founded by foreign initiative, and the peoples who founded them, particularly the Americans, brought in their own ideals of culture and methods of education; at considerable cost, they undertook the building of some admirable institutions. The Chinese rejoiced at being able to avail themselves of the educational facilities thus placed at their disposal. But these institutions were not subjected to the internal modifications necessary to permit of the utilisation of the potentialities of the great traditions which were specifically Chinese. It was in this sense, also, that the influence of Chinese students already referred to (p. 20), who had studied in Europe, America and Japan, manifested itself when they returned, full of what they had learned abroad and almost strangers to their own national traditions of culture. These students brought home, unmodified, ideas of institutions and methods with which they had become familiar during their studies. The justifiable conviction held by the Chinese that they are intellectually equal to any other nation led them, at the beginning of this process of evolution, to mistake the mere equivalence for an absolute identity, and also to adopt for China those institutions and methods which, in Europe and America, were intimately associated with the temperament peculiar to the several countries, nations and peoples.

The chief danger lies in the purely formal imitation of the methods and substance of foreign civilisations. A notable characteristic of contemporary China is the cultivation by a group of the specific tendencies of some foreign culture, whether it come from America, Germany, France or some other nation. The influence of America is by far the most important. A considerable number of young Chinese intellectuals imitate the outward forms of American life without appearing to realise that Americanism springs from conditions that are peculiar to America, entirely different from those that prevail in China. At the same time it is obvious that the modernisation of Chinese life cannot be effected independently of foreign models. This is why the new generation of intellectuals in China has been striving ever since the Revolution to remodel the Chinese educational system in accordance with certain imported ideals. The old Chinese traditions are rightly considered out of date. Most of the springs of China's high civilisation have run dry. At the same time one cannot but deprecate the tendency to misunderstand and underestimate their educational value. It is in its literature, whether it be philosophical, historical or poetical, that the spirit of a nation is expressed. To replace these traditions by the products of a foreign civilisation would be to disregard the spontaneous relation between the mentality of a people and its cultural manifestation. It is true that China cannot be modernised without the exploitation of foreign civilisations, but the danger of merely mechanical imitation cannot be overstressed. And with the tendency to copy from one model, and one model only, the risk of imitation pure and simple is increased. The autonomy of modernistic development in China requires a comparative study of all foreign civilisations, rather than the adoption of one to the exclusion of all others; for it must not be the aim of the development to Americanise or Europeanise China, but to modernise China's own national and historical individuality. National intelligence, the natural link between any people and the outer world, tends at all times and in all places to adopt those elements of a foreign civilisation that conform to its own needs, which are frequently found to be at variance with the exigencies of the masses. For the masses adhere more closely to their national traditions than

the travelled intellectuals alive to the grandeur and frequently won over by the charm of a foreign civilisation.

Thus the problem of foreign civilisations and how they can best be turned to account for the modernisation of China must present itself, not as the more or less extensive imitation of Europe and America by the upper classes, but as the nationalisation of all foreign influences in the interests of the whole of China and in conformity with the Chinese mentality.

In order to develop these theses, it is necessary to lay particular stress on the remarkable, not to say alarming, consequences of the excessive influence of the American model on Chinese education.

We do not propose to enter here into the details of the question, although these fundamental considerations must necessarily constitute the basis for any opinion that may be expressed. We will merely recall the American influence on the organisation of secondary studies (subdivision into juniors and seniors); on the adoption of the "credits" system; and on the great partiality for written reports and statistics. We would also call attention to the fundamental considerations given in the chapter on the training of teachers, where we spoke of "education" as a special branch of teaching. Reference may also be made to our explanations contained in the chapter on higher education (pp. 139 *sqq.*). These are all specific points. At bottom, we always find the American conception of education, a conception differing from that found in the countries of Europe. The officials responsible for public education in China simply identified American education and modern educational system. The old Chinese system of education seemed to them not only obsolete and in great need of reform, but also of a nature to be condemned. Without any transition, therefore, the teaching programmes and methods of the United States were made to supersede the centuries-old wisdom and learning of China. There are extremists who would like to see China Americanised. In view of this, we consider it indispensable to thrash the question out more thoroughly.

American culture obviously has its source in the culture of Europe, but with the cultural wealth borrowed from Europe, the Americans produced something absolutely new

and specifically American. The great task undertaken by the people of America in process of evolution was the fusing into a new culture of the features derived from the extremely varied cultural centres of the old world. In this, they succeeded to a very large extent, and it is now possible to speak of the culture of a new race. This race developed in a country whose local traditions were confined to a small fraction of its territory, and in which there was an immense vacant field awaiting to be filled and organised. To these considerations must be added another, that under the influence of living conditions fundamentally different from those obtaining in Europe, a new mentality was evolved within this new American nation. In so far as America was concerned, it was, above all, necessary to unite the numerous forms of European culture, whose representatives peopled the country, and to modify all these intellectual factors. Out of this operation there emerged something that seems simplified if it be considered from the point of view of European culture, but which fundamentally constitutes an original creation: the American civilisation.

Since the material manifestations of cultural progress in the United States are extremely striking, it is easy to understand that the first Chinese educators who came into contact with America, and who wished to introduce this material American culture into their own country, brought back with them also the idea of the foundations on which that culture is built, namely the system of American education itself. But they overlooked the fact that the special forms assumed by American culture owed their efficiency to their adaptation to the living conditions of America, and that the enthusiasm displayed by the American people for their own civilisation was not a sufficient reason for the Chinese to attempt to transport it into a country where conditions of life were totally different. China is a country of long-established traditions, and no country has ever sacrificed the whole of its historical culture without suffering the most baneful consequences. Moreover, the Chinese are not a new race in process of formation, but a people with a history dating back many hundreds of years; neither have they transformed their method of life, and present economic conditions are, to a certain extent, the same as those which ruled thousands of years ago. That simple consideration

is by itself enough to suggest that it is essential to enquire whether these American educational methods imported into China with such faith and fervour really meet the true requirements of the Chinese people, of that people which cannot attain to any standard of modern civilisation unless, like all the civilised peoples of Europe or America, it searches far into its own background where its proper being is reflected, and then builds up an appropriate and autonomous system of public education, instead of being satisfied with adopting features borrowed here and there for its educational system.

In this connection we may touch briefly upon a subject which we have frequently discussed with eminent Chinese educators. They continually put forward the argument that the Europe and America of to-day are the products of the scientific developments of modern times, and that, in consequence, China has only to adopt the scientific and technical equipment of those countries in order, thanks to the intellectual energy of the people, to attain a standard of culture as high as that of America or Europe. Our invariable answer to this argument was that the contention is a false one; that modern science and technique did *not* give birth to present-day America and Europe; that, on the contrary, it is European and American mind which has engendered modern science and technique and brought them to their present high level. The era of development of the natural sciences and of technique was preceded by another period or periods—the Renaissance and the ages of Rationalism and Idealism—in which Europe awoke to its own possibilities, and during which the men of the West subjected themselves to an intellectual training that, at a later date, in the years of invention and discovery, enabled them to grasp the secrets of the natural sciences and of technique, and to put them to the best advantage. A nation of such high intellectual capacity as the Chinese, with a population of from 400 to 500 millions and constituting a very characteristic and appreciable proportion of mankind, will never fully accomplish its destiny if it does not follow the same laborious path that other countries have had to follow, beginning by taking stock of itself—that is to say, extracting from its own history, philosophy and literature the Chinese equivalent of the intellectual conditions in which the coun-

tries of the West found themselves at the time of the Renaissance and the rationalist movement before they were able to enter upon the period of practical realisation in the field of natural science and technique. *The fundamental problem which arises in regard to education in China is not a question of imitation but of creation and adaptation.* European and American civilisation should play a no more important part in the education of China—if that education is to be really national and creative—than was played, for example, by the cultural wealth of antiquity in the formation of Europe, which used the ancient civilisations to discover itself.

The question of American and European influence in the matter of education, as exerted on the system of public education in China, thus brings us up against problems of paramount importance. Our confidence in what the Chinese people are capable of accomplishing justifies our hope that the leaders responsible for the public education policy of China will realise that any merely superficial adoption of European or American conditions and methods must inevitably lead to results of only accidental and secondary importance. This same confidence justifies our hope that the pride shown by the Chinese in the similarity between their institutions and those of Western countries with a modern culture of longer standing will not result in their confusing this apparent and outward similarity with true intrinsic equality. Public education in China will not attain the value of Western education until all signs of European and American influence have been eliminated, when there will be something really Chinese to compare with what is essentially American or European.

The object of these remarks is solely to warn Chinese educators against superficial Americanisation. Let them rather borrow that spirit of originality with which Americans have succeeded in adapting the culture of Europe to American conditions. The Chinese might, in the same way, adapt the cultural resources of Europe and America to the conditions which are specifically Chinese. The four members of the mission, representing four different springs of European culture, came to the conclusion that the cultural conditions of Europe are more suitable than American conditions for adaptation to Chinese requirements, because, precisely, American civilisation has developed *in spite of* a

total absence of local traditions, whereas European, like Chinese civilisation, must always take count of local traditions dating back thousands of years. There should be no misunderstanding here; we do not wish to see European educational methods substituted for those imported from America. We merely wish to emphasise our belief that no form of civilisation which has developed in another land, and in different conditions, can become the cultural tradition of the China that is now entering upon an era of reform. New China must mobilise its forces, and, from its own history, from its own literature, from all that is truly indigenous, extract the materials for a new civilisation that will be neither American nor European but Chinese.

CHAPTER III

THE SPIRIT OF TEACHING ESPECIALLY IN SCIENCE

It may be useful to note that the problems raised by the reorganisation of education in China are, at bottom, the very same as those the Western nations have had to solve —and have not, for the most part, yet solved. In one and the other, difficulties have the same origins, in one and the other the same principles must be applied in the search for solutions, in one and the other the same spirit is necessary. The differences are merely differences in degree, the task being, at the present moment, more arduous in China owing to the vastness and urgency of its needs under pressure of interior and exterior circumstances. The remarkable results obtained in such a very few years justify all the hopes raised as to the essential contribution that so great a country must inevitably make in the future as it made in the past, to the collective work of human civilisation.

Until the Renaissance, the European conception of teaching remained what, in China, it still was thirty years ago: dominated exclusively by preoccupations of a social and religious nature; an education, founded on knowledge of texts, prepared an intellectual aristocracy of clerks and literates for the temporal and spiritual direction of a mass that was only educated by oral tradition and the peasant or artisan activities of which demanded such simple technical information as to necessitate no scholastic preparation.

The new factor that has most powerfully contributed to the transformation of this state of things—which was so stable in itself—has been the ever more rapid development of different technical processes engendered by experimental science. Intellectual activity heretofore oriented towards what concerns the relations between man and his fellowman or between man and the gods, or, turning back on itself in abstract speculation, has then faced nature in an interrogative attitude. Gaining, like Antæus, new force from this intimate contact with reality, and submitting to the rough and healthy discipline of an incessant control of experiment in the construction of an adequate image of the

world, the human spirit has won self-consciousness and self-confidence in measuring its strength by the additional powers of action it won. The faculty of understanding, previously sharpened in a preliminary and perhaps necessary manner on the revolving wheel of the scholastic grindstone, has revealed itself as the most powerful tool at the disposition of man for gathering in the rich harvest of natural laws and mastering the technical processes necessary for their exploitation. The discovery, still quite recent in the life of our species, of that new power which in itself is a blind instrument either of liberation or of destruction, necessitates an adaptation of the social organism to the new conditions of life which it represents. The problems posed by that necessity for our Western world since nearly two centuries ago, and now, through a more and more direct repercussion due to technical progress, for the whole of humanity, are still very far from being solved. And it would seem that their solution has never been so urgent or so difficult as at the present time. But here we wish to dwell only on those concerning education.

From this point of view, the influence is so direct and so varied as to have completely changed the necessities and the attitude of human societies in the matter of education.

In the matter of necessities, it is quite evident that the increasing complexity of technique is transforming the one-time artisan and even the one-time peasant into industrial and agricultural workers, into conductors of machines, whose task demands at least a minimum of intellectual training, of knowledge and of means of information and precise expression. The rapidity and constantly increasing facility of communication and interchange between men and between peoples has a similar effect. Hence the introduction, in the common interest, of primary instruction for more and more of the population until it finally applies to everybody. This new instruction, juxtaposed, though not often confounded with the old imparting of culture reserved to the minority of future directors, spiritual or temporal, was long made to feel, and in many countries is still made to feel, its utilitarian origin. Owing to the little time given to it, and to the age of the children to whom it is addressed —not high enough for the true culture of the mind—it is too often reduced to a simple training, to the initiation

into the mechanisms of reading, writing and arithmetics. This breaking in augments the social utility and value of the work performed by the individual instead of widening his mind and permitting of his participating in the profundities or exaltations of the life of the species—as, we are beginning to conceive, it is, within the measure of his forces and his aptitudes, his right to do. And what is more, instead of constituting a true initiation into the collective life through contact with life, a preparation for the utilisation of things through having concrete knowledge of them, a social gestation prolonging the uterine gestation and subject to the same great biological laws, the new education, a bastard younger brother to the old imparting of culture, suffered under the very dubious influence of the latter, imitating its exaggeratedly abstract, dogmatic, verbal and confined forms.

On its side, that classical teaching that we speak of as secondary or superior, felt the influence of the necessity for technique in the training of leaders of men and had to make way for Science, and impregnate itself with a new spirit, with new humanities.

Here also, it would seem as if the end in most countries and institutions had not been attained, or the adaptation, the union, achieved between the diverse elements composing the culture of a man to-day. Introduced for reasons of a utilitarian nature rather than for the joy of understanding that it brings, scientific discipline has been, and too often still is, directed towards practical application, and smothered under the weight of that necessity. Like Cinderella in the story, it is believed to be—or it is desired that it should appear—less beautiful than its sisters, simply because it is more useful. Under an influence comparable to that exercised on the primary instruction of the people, but a still more direct influence, the teaching of science became dogmatic and verbal, a matter of the letter rather than the spirit, of results rather than method, having no adequate contact with the history of the great human effort that had made it necessary and fruitful. The successive crises that occur in secondary education in the majority of European countries show that a synthesis of the diverse elements of culture has not yet been attained, for want, as a rule, of sufficient confidence in the educative and human value of

PRIMARY SCHOOL IN NANKING

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PRIMARY SCHOOL IN NANKING

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scientific discipline. To introduce these should not signify the substitution of the letter of the scientific manual for the letter of the lesson book, of one scholasticism for another, but the true substitution of one method for another, one spirit for another, one wide opening towards the concrete reality of life, reproducing, for the school, the liberating gesture that the introduction of experimental methods and experimental science represented for all human collectivity.

It is, in fact, a material and spiritual liberation, that the understanding of the world and the power over the world given by that understanding, ought ultimately to represent for men. In permitting, by means of practical results and thanks to appropriate social conditions, the conquest of wretchedness and the diminution of the effort and pain that are, even to-day, still necessary for the assuring to most men of the preservation of their miserable lives, science might place the joys of the spirit, which constitute the true common treasure, at the disposition of all. Thus she stands at the beginning of the democratic evolution of human society.

Here we come upon another aspect of the influence exercised by scientific and technical development on education, that concerning the attitude of collectivity towards the individual, and the right of the latter to draw upon the common storehouse of culture, access to it being rendered possible to everybody, and the possibilities of enrichment from it being increased in perfect proportion to the number of participants. It is a case of the happy coincidence, between the interest of the one and the interest of all, which dominates every tendency of the new doctrine and spirit in questions of education.

More and more the right of every child to be educated is being accepted, as a social gestation which, while respecting and following the normal and spontaneous development of his mind, and, through seriously spent leisure hours, permitting the assimilation of new facts and new ideas and the free development of the personality, initiates him into the diverse aspects of human activity so as to facilitate for him the choice of that one best suited to his aptitudes while leaving him in a position to understand the interest and the beauty of others as well as their relationship to his own.

Such an education prepares the child for contact with men as well as with things, binds him as tightly and yet as freely as possible to other men in space and time, and develops in him a profound sense of the solidarity that unites him with all the others in the great adventure that the life of our species represents, the adventure which it rests with us to make marvellous or tragic.

Having thus recalled the ideal, it has to be recognised that we—all of us—are still far from attaining it, and that the difficulties in the way of attainment are very great, more particularly in a country like China which is enormous and very poor, a country of high artistic and moral civilisation which, although it has known and adopted the highest ideal of human fraternity for thousands of years, has not, nevertheless, for the historical reasons indicated above, until quite recently recognised the right of the child to be educated. It has only done so in proportion to and under the pressure of the needs of its technical development, itself imposed from without by foreign intervention, in which the power conferred by the elements of a scientific civilisation appeared in its most brutal forms.

But these interventions did at the same time reveal to China the beneficent possibilities of the reconstruction which was so necessary, and China is to-day deliberately travelling a road on which the West preceded her, and on which, having called in outsiders to help her along the first stages, she must soon make her way by herself. She will be only rediscovering her own tradition, as witness the history of her art and her own technical achievements, and also the ardour with which her youth is turning towards the new culture.

It is in linking up her new effort with her own past, in taking from Western science that which gives it true human value, its spirit and its methods, that is to say, rather than its results, that China will be able to fertilise its own culture with this germ of renewal, and bring in what may be most precious for herself and for us, a personal and a new contribution to the collective action of nations, to the common storehouse from which men draw. If it be true that there is unity in science, it is in the sense of a living and organic unity, of which the development, although

subject to internal laws, is largely influenced by personality, and bears the mark of individuals or groups whose common achievement it is. Up to now, Chinese civilisation has shown such pronounced personal characteristics that we have the right to expect a great deal from it in the future, as we should be seriously the poorer if, through lack of self-confidence, China let herself be seduced by the somewhat deceitful appearances of our material successes—for they are richer in show than in deep humanity—and contented herself with imitating us in the different domains of thought, science and art. She would be thus renouncing, to our great loss as well as to her own, the new synthesis of science, art and humanity that, potentially, she, and perhaps she only, has it in her to produce.

She will come to it through inspiration rather than imitation; she ought to develop a system of education answering her own needs, conforming to her own sense of values, and preparing men to make themselves useful in building her up again. Faithful in this, to the teachings of the experimental method, she ought, utilising the lessons of the past, to enlarge the possibilities of contact between the spiritual and the material in all domains, between the school and the life outside, noting at every instant the reactions of the latter in order to assure the necessary adaptation to it.

These principles which find their application at every phase of instruction, demand first of all that the development of the mind of the child should be the essential guide for the educator, and that, in accordance with the biological law that makes every individual go through abridged stages of the evolution of the species, the process should be to the abstract from the concrete, to the idea from the object, to the sign from the thing signified. At the beginning the young child's faculty for registering concrete facts and material sensations should be largely exploited. Turning his attention towards the observation of nature, organic nature in which he is so spontaneously interested, for choice, he should be taught to see, to recognise and to classify, classification implying notion, sign and precision of language. The teaching of ideographical writing such as exists in China would be thus allied and subordinated to the presentation of the facts that it represents and the concrete

ideas that it expresses, and it is thus rendered easier and more precise.

Later, as the mind ripens in intimate contact with facts, becomes capable of rising to the idea of a necessary linking up of facts, and the notion of a natural or human law, the child may be taught—but always in relation to experience—how it is possible to foresee and to understand the reactions of the world about us, and how to construct an adequate mental representation of it that may be precious from the point of view of activity, and still more so from that of contemplation. So as to penetrate the consciousness deeply, that representation should be largely based on the entire living and familiar experience of the child. Thus constituted it might furnish a solid buttress to his mind, playing to a certain extent the part of skeleton in the mental organism.

And hence, certain varied consequences as to the manner in which the new facts ought, at this stage, to be presented, in order to facilitate their assimilation, their incorporation into an already organised system. This presentation ought, first of all, to be made in the most direct, the most simple and most familiar possible form so as to exploit to the greatest extent the echoes awakened by the new utterance, and the appeal to analogies through which its fixation may be facilitated. In the domain of physical and natural science more particularly the constantly necessary recourse to experiment should be had through the simplest means, without that unnecessarily and discouragingly complicated apparatus which gives an artificial character to experiment, and, as a natural consequence, to all scientific effort, thus interfering with the so necessary bond between it and life and the deeper initiation into the spirit of life.

Another consequence, and a still more important one, concerns the language in which, especially at the beginning, the teaching of science ought to be given in secondary schools. If it be agreed that new ideas are deeply assimilated by the mind of the child and cling so that they later become truly and efficaciously his own, then these ideas must be imparted in his own language, by means of symbols around which all his anterior knowledge has been organised. Hence the necessity absolutely to proscribe the use of manuals in foreign languages in secondary teaching.

It is quite certain that at the secondary school stage, when the linguistic formation is still very incomplete and fragmentary, all science taught in a foreign language remains foreign to the mind of the child. To prepare the deep penetration of the scientific mind and method, which is so necessary in China, the getting out of manuals in the Chinese language is an indispensable and urgent measure. And there ought to be a preliminary determination of the new vocabulary which is special to each discipline.

Another important observation with regard to this subject concerns the precious reaction of thought on the language which has to express it; the function creating or modelling the organ, the necessity to express precise thought tends to impose precision on the language, and by teaching science in a foreign tongue the benefits of a growing enrichment and precision of the national language written and spoken are lost.

Naturally in the higher stages, when first, the need of information, and secondly, collaboration in the common work of scientific research, necessitate the reading of foreign works, the danger has disappeared, the deep personal training has been acquired, and relations with activities outside of China may and should begin.

Contact with life ought also to be assured, constituting at all the stages of instruction an ever greater part of active discipline, practical work, and manual or artistic work which, with the development of personality, develops the faculty, the taste and the joy of acting, creating or studying at the very sources of knowledge.

The school ought to cease turning back on itself, to cease being a microcosm, an atom in which the outer world is distorted by reflection; it ought, on the one hand, to open out towards the world in order to observe nature or acquaint itself with the diverse forms of men's activities, and open out also so that men may enter and give advice as representatives of the world outside.

The contact thus assured should be widened as studies grow more advanced, thus justifying the principle that it may prove wise to continue in the organisation of the public instruction of so vast and varied a country as China: the mainly local organisation of primary teaching in the dis-

trict, of secondary teaching in the provinces and on the higher level of the universities, national organisation, with, at the more advanced stage of research work, international ramifications. It would seem therefore desirable that the sending of young men abroad should not be done prematurely, that it should take place only at the end of the completed cycle of their university training—as with the body so with the mind, nothing is as good as mother's milk for the development of the personality. The tree bears the more fruit, and its branches rise the higher as its roots penetrate more deeply into the soil in which it was engendered, and the high branches unite easily with those of neighbouring trees in the search for mutual support.

The preceding remarks apply in a very particular manner in the domain of instruction in arts and crafts which are so important in the formation and expression of personality in individuals and peoples. Rich, from this point of view, in its admirable past, China ought to lean on that, ought to draw from it the strength for new creation. The exceptional gifts of sensibility and invention possessed by her people can only flourish when she has confidence in her own genius. In the spirit discussed further back, it is always essential that before turning towards a foreign and far-off inspiration, the child's eyes should have long rested on the pure forms in which the sensibility of those who, being nearer to him, are easier for him to understand, has expressed itself. Too often the pictures that decorate the classrooms in schools are of foreign origin and on the lowest æsthetic level, as are too often also the *objets d'art* imported and sold in the shops frequented by the ill-informed and misguided people. On all sides it is essential to draw very largely on the treasure house of a past in which art in all its forms incorporated itself so profoundly in every manifestation of Chinese life.

It is necessary, by these means, to construct a new China which should be neither traditionalist in the old way nor simply imitative, but which, returning like everything else to the sources of knowledge, should learn to handle the powerful instrument of material and spiritual liberation represented by the scientific method. This necessity is even more urgent for reasons of moral than for reasons of utilitarian order.

It is incontestable that the rapidity of the transformations imposed, sometimes very brutally, from outside, on a China ill prepared to receive them, and the substitution of an exaggerated, pragmatical, dogmatic and utilitarian materialism for the ancient culture, has caused deep disturbance in many Chinese souls in the thick of an extraordinary conflict of values, rendered all the sharper by economic and political difficulties, interior and exterior; the best minds often do not know where to turn for a principle of action or of faith in the future.

To rediscover its one-time equilibrium, China ought to count above all on an organisation of instruction largely based on her own culture, and just as deeply animated by the spirit of experimental science. She ought to learn that science is worth man's while not so much for the material power it gives him as for the attitude to which it accustoms the mind. True science is neither a collection of practical results that allow of the material domination of the world, nor a vain intellectual ornament; it is the very life of the mind in its secular and never yet achieved effort at adaptation to reality.

Through the ever closer bonds that it establishes between individuals as between nations, by the collaboration that it demands, by the precise sense that it gives to the notion of a collective progress, science contributes powerfully to the development of the sense of human solidarity, and of that reciprocal good will on which China has long understood it is necessary to found the rules of the moral life.

For this reason, China is more assured than any other human group of rediscovering herself in following that road, and of bringing a particularly precious contribution to the collective work of enrichment and liberation.

CHAPTER IV

LANGUAGE AND WRITING

Amongst Chinese educational problems of the present moment the question of a single Chinese language and the related question of the Chinese system of writing have a special significance. The opinion is universal in China that to save the unity of the country it is indispensable to maintain the system of ideographic writing. But if the problem of unity be looked at from the angle of wider future needs, it may be found that the unity of writing is insufficient for these purposes, that emphasis should rather be laid on the spreading over the different areas of the country of one general Chinese dialect (Mandarin?). We abstain from uttering a final opinion, wishing only to underline the importance of the problem.

Besides spreading the knowledge of a national language and writing, the task of the education authorities is also to organise work having for one of its aims the enrichment of this language and writing with new expressions for new conceptions brought out by modern life and modern science. This demands the co-operation of many specialist commissions. Of late years there have been attempts at reforming the writing, especially in connection with the mass instruction of adult illiterates. This is an eloquent proof that instruction of the masses creates a necessity for a simpler, easier form of writing, requiring less time to learn. These attempts at simplification either take the form of reducing the number of ideograms submitted for instruction to the minimum indispensable for daily use, or of phonetic writing, based sometimes on Chinese writing, sometimes on Latin. Attempts of the first sort give very doubtful results, as, with such a reduction of signs, the range left open to the readers is very small. Such a system would simply divide the population into a more intelligent group able to read everything and a less cultivated mass familiar only with the broadly developed writings. This would be extremely dangerous from the point of view of general progress and for social relations. It is, therefore, difficult to suppose that efforts of

the kind could last. They are rather of transitional and transitory character.

The attempts at phonetic writing are sometimes of a hesitating, sometimes of quite decided character. The great difficulty in the way of them all is the special character of the Chinese language, with its important differentiations in intonation, manifold meanings of expressions, etc.

They meet with many opponents who argue, firstly, that the breaking with ideographic writing would cut off the further development of Chinese culture from its great traditions, and would be at the same time a blow to Chinese art so nearly connected with the art of writing and in its application widely spread among the population. The question of writing is still unsolved in China. On this point, also, we abstain from expressing a qualified opinion, since the final decision will depend upon political rather than pedagogical tendencies. We would point out, however, that the question has frequently been examined by the Ministry of Public Education. We would also call attention to the proposals set forth in a report of the International Committee on Intellectual Co-operation—League of Nations Official Doc. No. A33, 1931, XII, page 37.

We noted that attempts are at present being made to reform writing, and, what is worse, reformers spread their theory and practice independently in various centres and neighbourhoods, which is distinctly contrary both to the idea of linguistic unity and practical good sense. It would be advisable for the Ministry of Education, in collaboration with the Chinese Academy (Academia Sinica) and other more important learned institutions, to create a commission which would devote itself entirely to this problem and propose a solution to the Ministry of Education which could be made binding on the whole country. It might be desirable for a few foreign specialists to take part in this commission.

PROPOSALS

1. The Ministry of Education, in collaboration with the Chinese Academy and other suitable scientific institutions, should call into existence a commission to deal with questions of the official language and the reorganisation of Chinese writing.

The resolutions of the commission ratified by the Ministry should be universally binding.

2. A wide range of studies should be carried out in order to determine the Chinese terminology for the most indispensable social and scientific conceptions, etc.

CHAPTER V

PRINCIPLES OF ADMINISTRATION

1. Centralisation or Decentralisation

THE first question that arose when we were invited to submit our proposals for administrative reforms was as follows: Should administration be centralised or decentralised? This problem embraces, moreover, not only the activity displayed in a lesser or greater degree by the Central Government as compared with that shown by the provincial governments; it raises also the question of cultural self-government or autonomy. It is not, of course, for us to come to a conclusion on such a subject as whether the Chinese people envisage their future status as unified or federative. Public national education is, however, one of the most essential factors in the development of a nation. We need only to consider present-day Russia and Italy. There is reason to doubt, however, whether it would be advisable for the Chinese Government to adopt such a policy of centralisation. For the Chinese people's will to remain united and the general consciousness of Chinese civilisation constitute a sort of invisible bond between the provinces, which, notwithstanding the great distances that separate them and the variety of languages spoken, show an astonishing cultural unity. This tendency would perhaps be rendered all the stronger by the adoption of a centralised administrative system, but it will remain alive even without that aid. In the proposals put forward at the end of this chapter we have taken the idea of centralisation as a starting-point, but these proposals might also be brought into operation if the responsibility for management were left to the provincial governments, in so far as each is concerned, and if the Central Ministry in the capital retained no functions other than those assumed by a Board of Education, such as exists in the U.S.A. The problem is really a political one, and can only be settled by the Chinese people themselves; it is for this reason that we have felt obliged to formulate this general reservation.

Whether initiative be in the hands of the authorities of

the capital or those of the provinces, it is of primary importance that these authorities should be administratively and financially responsible for all the subsidiary units under their jurisdiction. There is at present, in practice, a very considerable division of responsibilities. For example: the responsibility for financing the different branches of the educational system is distributed in such a way that, in general, the Central Government finances the universities; the province finances the secondary schools, and the district (Hsien) finances the primary schools. Nevertheless, the province also contributes to the cost of primary education; the Central Government, on the other hand, contributes nothing under this head. All Governments, however, have found that where a department does not contribute in the matter of financial resources it can exert no influence. Considering the tremendous importance of primary education for the nation, it is essential that the Central Ministry should have an interest therein, and consequently that it should bear a share of the cost. It is only in these conditions that the primary school can become a really national institution. But then it will naturally be necessary to set up, within the Ministry, a special department of primary education. Up to the present, primary and secondary education have been grouped under one department, while a distinction is already made in certain provinces and, in others, higher and secondary education have been grouped together. In a State administration which has attained its maximum development it is obviously highly desirable that no impenetrable barrier be erected between primary and secondary education, in which, in the end, the same problems have to be solved; the fusion, considered on its own merits, is justified. But when, as is the case in China, a system of primary education is being built up, it is very desirable that it should be given a department entirely separate from the Central Ministry, otherwise the interest of the officials may be easily absorbed by problems of secondary education or by the attractive questions arising in social education. Such a state of affairs is hardly to be avoided when the Central Government is not concerned with the financing of primary education.

If there exists in China a field of activity in which it is possible to apply the fundamental principles of present-day self-government fruitfully, it is surely in that of education;

even among the poorest, in fact, the Chinese people, with their traditional love of children, take a special interest in school matters, and we were convinced that they would be ready to make sacrifices in this connection which they would perhaps hesitate to make in other matters. But in many respects modern education does not correspond to ancient traditions. It may be said of all peoples having a culture of their own that no progress is possible in the field of education without conflict with the preceding generation, and this is naturally true of the Chinese too. The first duty of a Government towards the population is therefore that of defining what it wishes to do. Therefore, we would suggest that education authorities should set up for their guidance advisory committees consisting of representatives of the teachers and of the parents, and that, in conjunction with experts wisely chosen, these should examine different problems as they arise. The Ministry has, moreover, already provided for the constitution of committees of this kind and some of them have been formed. Below we have formulated a number of proposals in which we have defined the duties incumbent on these committees.

2. Criticism of the Existing Situation

The general impression that we were able to form regarding school administration was that its organisation is carried to excess; this system, in fact, is not confined to the provinces and districts (Hsien), it continues to function in the subdistricts (Ch'u) and in the schools themselves. Each school possesses an administrative personnel whose numbers are out of all proportion to practical requirements.

It is true that the Ministry of Education employs only about fifty officials, but, on the other hand, each provincial Department of Education has a staff of from 30 to 100, while a "Hsien" has from 5 to 20, and even the "Ch'u" employs an official or two engaged more particularly on education work. It should be added that every Chinese school is overstaffed with administrative servants. For instance, in 1930 in 56 higher schools there were for 25,018 pupils and 5,636 teachers, 2,580 officials—one administrative official on an average for 2 teachers and not quite 10 pupils.

Taken as a whole, this form of administration constitutes

a heavy burden on the public education service, and the evil is all the greater since the number of officials is greatest where there is least real administrative work to do.

With all the mass of materials they possess, representatives of education authorities have difficulty sometimes when some more general questions are asked demanding a drawing of conclusions from given data. Single officials often have little knowledge of the work of the whole office; they are not sufficiently informed either as to the general problems or even the given material.

Altogether, the staff is insufficiently equipped for its task and lacks initiative. This would be very evident in the event of the difficult and burdensome task of complete transformation of the present organisation of education in China having to be carried out. One gets the impression that the educational administration in China has progressed less than schooling itself—which has profited more from foreign examples and modernised itself more. We have to remember that it is not easy, especially in China, for the administration to master the problems of the social organisation of education. No serious study of them is made at universities, and there is no centre of knowledge on the subject.

It would therefore seem advisable that the Chinese educational authorities should develop greater interest in the organisation and technique of administrative work. Leaders of Chinese educational administration should get to know the organisation of their own administration and try to gain exhaustive knowledge of the chief problems of the organisation of education in different foreign countries—not only where the educational administration has an old tradition, but also in those countries which, after the war of 1914, carried through a reorganisation of education according to new social needs.

In order, however, that these foreign examples should not be accepted too mechanically, in order that they should be rather used as a help in setting up a system suited to Chinese needs, under different conditions and with other tasks to fulfil it would be advisable to organise discussions and studies on these problems at the centre of the whole machinery of Chinese educational administration. To ensure swifter and more decisive action, the educational administration in China ought to secure more decided executive power

over the school and a more decided influence on the budget of public schools. The administrative employees ought to have permanent conditions of work assured to them and proper responsibility. At present the educational official in the province or district is often completely at the mercy of different factors of a private nature and, in a very narrow meaning of the word, of a political nature. There are districts in which the superintendent of education, the head of the district educational bureau, although presented by the social-educational organisation of the district and appointed by the provincial commissioner, is nevertheless changed every few months through the influence of such factors. In these conditions the official is naturally afraid to act; he is afraid of everybody and everything, so he adopts a passive attitude and lets well alone.

It would therefore seem advisable to free the employees of the educational administration from the influences of the political administration and to give a certain protection, within the limits of the educational administration, to subordinate officials against the present arbitrary procedure of the higher officials towards them. Independently of this there should be a certain material security of employees of the educational administration.

In order to encourage the sympathy and interest of the population in the work of the educational administration in all its branches and in all ranks of the service, advisory organs ought to be created from among the interested population. They would be able to give much help to the administrative authorities in many departments of work and could spread interest in education and its organisation among the masses of the people. Under present conditions in China such auxiliary organisations might play an important rôle.

PROPOSALS

1. The manner of appointment and dismissal of officials of the Education Administration ought to give greater influence than at present to the Ministry of Education; and the educational administration should be more independent of the general administration. Directors of departments in the Ministry of Education and commissioners of education in the provinces—these latter after an understanding with the Provincial Governments (commissioners)—ought always to be appointed by the Minister of Education. The Minister of Education should also appoint the heads of sections of the Provincial Department of Education on the recommendation of the Provincial Government. Superintendents of the bureau of education in districts should be appointed by the Head of the Department of Education of the Province.

2. The authority which appoints should have the right to dismiss an education employee, within a term of not less than six months, and giving reasons for the dismissal. The employee should have the right to appeal against a decision of a lower to a higher authority.

3. In all stages of the service advisory commissions should be appointed to co-operate with the state education authorities, composed of representatives of the interests of the general public and delegates of the teachers. Thus with the Minister of Education the Chief Council of Education, with the provincial Department a provincial commission under the direction of a commissioner, and with the district bureaus district commissions under the direction of superintendents. Commissions should give their opinion in matters of general education policy, on budget estimates and spendings, on the qualifications of candidates for teacherships, on appeals against dismissals, etc. Besides these commissions, communal education committees should be organised in communes and in separate schools parent committees. In secondary schools, normal and vocational schools committees should be organised consisting not only of teachers and representatives of pupils' parents but also of representatives of the more important social-economic institutions.

4. In the domain of supervision of education and the direction of public education the division of competence among the Ministry of Education, the provincial Departments of Education and the district bureaus of education should be more strictly fixed than is the case at present. The supervision of higher schools should be exclusively entrusted to the Ministry, of normal and vocational schools to the provincial departments and of the primary schools to the district bureaus.

In the organisation of the Ministry of Education the department of primary and secondary education should be divided into two departments, (a) *Primary education,* (b) *Secondary education, taking into consideration in each of these divisions organisation work, programme work and strictly administrative work (budgets, staff, inspection, etc.).*

5. The conditions of work, payment, advances and insurance of state functionaries in general and of officials of the education administration in particular should be fixed.

6. It is desirable that the heads of the education departments should be better acquainted with the organisation and methods of school administration in the principal European and American States. To this end we recommend study visits.

CHAPTER VI

FINANCIAL ORGANISATION

1. Distribution of Funds

Our visit to China was of too short a duration to permit of an exhaustive study of the sources from which public education derives its funds. We will therefore confine our remarks to a few particulars concerning the distribution of expenditure, the different administrative grades and the remuneration of the teaching staff. Statistical data were furnished to us by the Government and, as already stated, are based on the hypothetical figure of 460 million inhabitants (*cf.* p. 15).

According to an approximate estimate the amount of the expenditure on public education in China comes on an average to about 25–30 cent. per head annually, with a general sum of three Mexican dollars of yearly taxes paid on an average by each inhabitant to central and local state funds. This means that at present Chinese education expenses constitute about 9–10 per cent of budget expenses, and in the case of further demands by the central national budget for debts and administrative tariffs, about 11–12 per cent. This is a lower percentage than in most countries possessing well organised education systems. It is too low, for Chinese families are large, and this, of course, means greater need for schools, teachers and equipment.

Further, there is an enormous difference in the percentage set aside for education in the central budget, the provincial budgets and the district budgets—these latter are estimated with the county (Ch'u) and village budgets. In the central budget the net percentage (after subtracting debts and costs of administrative tariffs) does not amount to 5, whilst in the provincial budgets it reaches 10, and in the districts (together with the counties) it often attains 20. As has already been stated (p. 44) the central budget must be considerably increased if the influence of the Central Government over education is to be extended, were it only to encourage the sentiment of Chinese unity.

A certain increase ought also to take place in the provincial

and district budgets. The district ought to be the smallest unit for the collection and distribution of primary education funds and the collection of contributions by single villages for the benefit of their own schools should cease. County (Ch'u) rates for education should be supplementary to the financing of schools by the district authority. The county and village are too small to be able to assure either a just taxation of the population for school needs or the carrying on of a proper education policy.

The destinations of the central, provincial and district education budgets in China are different (*cf.* p. 44). The central budget, except for some slight amounts, is destined for higher schools, the provincial budgets principally for secondary schools, and the district budgets (together with counties and villages) for primary schools. As a result of this arrangement quite extraordinary anomalies have arisen. Whilst according to an approximate estimate the yearly expense for one pupil in China in lower primary school amounts to 3·5 to 4 Mexican dollars, and in higher primary to about 17 Mexican dollars; it amounts in lower and higher secondary school to about 60 Mexican dollars (in secondary higher, in normal and vocational schools to about 120 Mexican dollars); and in the higher schools (universities, colleges) it rises to 600–800 Mexican dollars. Hence the difference between the expense to the State of a pupil in primary school and in the university, which in European countries does not exceed 1 : 8 or 1 : 10, amounts in China to the quite unheard-of figure of 1 : 200. This shows the extraordinary neglect of the primary school that is destined for the masses of the people as compared with secondary schools and, more especially, higher schools. Independently then of the question of securing grants for education from the public budgets, it is indispensable to reduce such excessive differences in the situation of the different kinds of schools. One of the ways of attaining this would be the participation of the Central Government in the financing of the secondary and primary as well as the higher schools, and for the provinces to take part in financing primary as well as secondary instruction. The difference in the average cost per pupil in the different kinds of school stands in close ratio to the difference in the scale of teachers' salaries. A teacher in a primary village school in China gets sometimes

30–40 Mexican dollars monthly, but generally only about 10–15 Mexican dollars monthly. The higher figure is quite exceptional. A teacher in an urban primary school usually gets 20–30 Mexican dollars monthly, seldom more. On the other hand a teacher in the lower classes of a secondary school usually receives 80–120 Mexican dollars monthly, a teacher in the higher classes about 150–200 Mexican dollars, whilst a professor in a higher school gets usually 300–400 Mexican dollars monthly, sometimes even more, and works often in several schools, which of course raises his scale of earnings higher still.

Whilst in Europe the difference in the salary of a primary school teacher and of a teacher in a higher school does not exceed 1 : 3 or 1 : 4, in China it is many times greater (1 : 20 or more). It would be therefore advisable to diminish this disparity in the scale of salaries, raising the salaries of primary school teachers, which are far too low even for China where the cost of living is very low.

And with the standardising of the scale of teachers' emoluments, stability of payment ought to be assured. At present payments are often in arrears, especially those due from the central budget—that is to say, the salaries of professors of higher institutions.

PROPOSALS

1. Expenses for public education should be assured in the central, provincial and district budgets according to accepted estimates. In the central budget (besides debts and payment of administrative tariffs) the scale of expenditure should be raised by not less than 15 per cent, in provincial budgets by 15–20 per cent, and in districts budgets by 25–30 per cent. At the same time single villages should cease to receive payments for their own schools, whilst the taxes of the counties (Ch'u) for school purposes should be reduced to supplementary rates (for such necessities as the keeping up and securing school buildings, and so on).

2. The division of education budgets ought to be stricter, the central budget should maintain all public higher schools and subsidise secondary and primary schools where necessary; the provincial budgets should maintain all secondary schools and subsidise primary schools, and the district budgets should maintain all primary schools. The basis of assistance by the Ministry of Education to the provinces

and by the provinces to the districts should be the difference between educational needs and the wealth of the population.

3. The payment of the different classes of teachers in the schools should be on a more evenly proportioned scale. In territories where living is dear, teachers' payments should be proportionately increased. There should be automatic increments every few years. A scheme of insurance of teachers in case of inability to work or old age (pensions) should be introduced. Payments to teachers should be made by payment lists. Separate school budgets should be specially balanced and guaranteed by the directors and verified by the education authorities.

2. Boxer Indemnities

The means which China can spend for public education are not only limited to the funds of which the State disposes directly. Arrangements have been made by the various Powers under which the outstanding portions of the Boxer Indemnity of 1901 are to be used for educational aims and public utility.

The administration of these funds lies in the hands of mixed committees of Chinese and representatives of each given Power. To estimate the importance of this matter it is enough to mention that the American part, devoted entirely to public education, suffices not only to finance the University of Tsing Hua, but also to maintain the China Foundation, which has carried through the splendid enterprise of building the National Library in Peiping, supports professorial chairs in different Chinese universities, and makes grants to a number of scientific institutions. The shares of other States are wholly or partially, either nominally or actually, used for purposes of public education. There arises the question of applying a general policy with regard to these funds in such a way as to fit into the general system of education in China. This is the more important as the use of these funds is often neither economical nor consistent with the purposes for which they are intended to be used. The funds arising from the indemnity constitute extraordinary resources and should be used for extraordinary expenses, as for instance for reorganisation of the education system, for founding new institutions, erecting new school buildings and scientific institutes, etc. It is quite indispensable

that a Commission should be formed for working out a complete plan for the use of the Boxer Indemnity. A meeting of all the members of the various mixed committees, with the participation of delegates from the Ministry of Education and the Ministry of Foreign Affairs, would form the nucleus of such a Commission. Its chief purpose would be to prevent an irrational disposition of such important funds by separate committees. These latter can work usefully each in its own sphere but they must accommodate themselves to the general plan. Steps should also be taken with a view to making available all the sums which are owing on Boxer Indemnity accounts but which, for different reasons, are not yet being employed.

At the present moment when China is considering the complete reorganisation of her system of public education, the rational use of the Boxer Indemnity of 1901 is extremely important. The agreements between China and the Powers contain different conditions and we may expect that international intellectual co-operation "developing under the auspices of the League of Nations" will have, as part of its task, to endeavour to co-ordinate the activities of different mixed committees each of which is acting on its responsibility, as well as take the initiative in promoting agreements the effect of which will be to make the still unused quota of indemnities available for the purpose of educational reconstruction.

PROPOSALS

1. A special Commission will be set up by the Ministry of Education for investigating the use of the Boxer Indemnity funds which have been assigned by the Powers concerned, in agreement between China, for the work of education and scientific research. This Commission will be composed of the Chinese members of all Chinese-foreign committees which control the Boxer Indemnity funds in question, and of delegates of the National Economic Council, the Ministry of Education, the Ministry of Foreign Affairs and the Ministry of Finance.

2. The Commission will work out a general plan for using the said funds in accordance with the programme of the reorganisation of public education.

3. The Commission, in agreement with the Chinese-foreign committees, will make such changes in the manner of carrying out the existing agreement as shall ensure that the funds are used in the most effective and economical manner.

4. The Indemnity funds will be used as far as possible for extraordinary expenses (investitures) such as preparatory work for reorganising the system of education, the creation of studios, museums, libraries, etc.

CHAPTER VII

THE TEACHING STAFF

ACCORDING to the present Chinese education system the staff of every school from the lowest to the highest is completely subordinate to the authority of the director of the school (the principal or president). He alone is nominated by the education authorities, he alone receives money from the public funds for the maintenance of the school and payment of the teachers, he alone nominates and dismisses teachers and other school functionaries, being limited only in having to state the qualifications of the persons accepted to fill positions as teachers.

Conditions of this kind render difficult the proper selection from amongst candidates. Even the most disinterested director is hindered by the small choice of candidates—about whom he must get information privately! It easily happens that, in these conditions, he has primarily to consider persons of his own acquaintance. With such uncertainty as to the future, with security of tenure not assured, with no assurance, of any kind, teachers feel that they are rather temporary employees in a separate school than members of a professional group conscious of their general duties and taking an active part in the working out of ideas and helping to build up a whole system of general education. With the lack of fixed rates as regards the number of teachers and other functionaries and their employment, the free hand exercised by the directors leads often to great differences in the amount of work given to individual teachers, to unmotivated differences in salaries, to inadequate lodging of school, teaching staff and administration.

One of the most essential needs of the teaching staff, besides the normalising of rights and duties and the assurance of their material existence, is—especially in present Chinese conditions—the organisation for active teachers of adequate continuation classes. China is not now able to supply the schools with a sufficient number of qualified teachers, but, on the other hand, it cannot slow down the development of schools and wait on the preparation of normally qualified teachers. In these conditions it is necessary

to accept a very large number of insufficiently qualified teachers at present, and an effort should be made to enable these to complete their preparation during the time of their vocational work.

PROPOSALS

1. Presidents and professors of public higher schools should be nominated by the Minister of Education at the recommendation of a special university commission, and in the future on the recommendation of the university body. Directors and teachers of public secondary schools should be nominated by provincial education commissioners. Directors and teachers of public primary schools should be nominated by the district superintendent.

2. The nominating authority should have the right to dismiss a teacher within a period of not less than six months and giving reasons for the dismissal. The teacher who receives his dismissal from an authority of lower rank should have the right to appeal directly to an authority of higher rank, who, on the findings of a special commission appointed to investigate the motives, would finally decide the question.

3. The number of teachers and administrative employees allowed in schools of different type and kind should be defined by law. Vacancies in secondary schools should be announced by the commissioners, those in primary schools by the superintendents. The applications of candidates should be considered by the education commissions and presented to the commissioner or superintendent for final decision and appointment. Conditions of work and salaries (v. pp. 51-53) should be fixed by law. The teachers should have the right of free association and professional organisation.

4. To facilitate the training of active teachers special teachers' conferences, correspondence classes, vacation courses, travel for special studies, etc., should be arranged.

CHAPTER VIII

THE DISTRIBUTION OF SCHOOLS OVER THE COUNTRY

THE placing of schools of different types over the country—the question, that is, of the educational circuit—is of enormous importance for the development of education in China.

Heretofore the circuit has evolved, in a great measure, out of the accidental local conditions. Schools have arisen where they were least necessary, and then schools of a kind that were least necessary.

Even comparing such large units as provinces it is evident that the spread of special types of school is often not explained by general conditions. Primary schools, for instance, have developed notably in Shansi, relatively not one of the wealthiest provinces and situated away from the centres of economic and cultural movement. In all other provinces the educational circuits are much less developed, although some of them have better conditions and as great educational needs. In some of these provinces, such as in Chekiang, Hopei, Kiangsu and others, the number of primary schools in relation to the number of children of school age is many times greater than in others, such as Hupeh, Anhwei, Kiangsi. Secondary schools have also developed very unequally in the different provinces and without close enough relation to the development of primary schools, so that provinces which are very strong as regards the development of primary schools are sometimes very weak in regard to the development of secondary schools and vice versa. Secondary schools are more or less equally developed in Shansi and Kwantung, but primary schools are far more developed in Shansi than in Kwantung. In Kiangsu secondary schools are far more numerous than in Shansi or Kwangsi, whilst primary schools are about equal. In consequence of these differences pupils finishing at the primary schools have only very varying possibilities of getting access to secondary schools. Higher schools are not less arbitrarily scattered and are not sufficiently linked up with the secondary schools, especially the middle schools, from which their

pupils come. They are concentrated in a few places like Peiping and Shanghai and are often altogether lacking or insufficiently numerous in centres that would be suitable for higher schools. Sometimes they are non-existent in whole provinces, as in Kweichow and Shensi, and are established in centres that are not suitable and do not produce an adequate number of applicants, even from a very large area. And as regards programme they often do not correspond at all to the most essential needs of the parts of the country in which they are placed. The sometimes large migration of students from one end of China to another is in a great measure connected with this unequal and accidental location of higher educational institutions.

The number of lower primary schools in relation to higher primary schools and the number of junior middle schools as compared with senior middle varies considerably in different provinces, in consequence of which the chances of passing from a lower school to a higher are very unequal. In the provinces of Kwantung and Anhwei higher primary schools are more numerous in comparison with lower primary ones than in the provinces of Hopei, Shansi, Chekiang and others. In the provinces of Honan and Shantung junior middle schools absorb about 80 per cent of the entirety of pupils in middle schools, whereas in Kiangsu and Hupeh this percentage hardly reaches 33⅓.

In the normal schools of different provinces the number of pupils is often disproportionate to the population. In Kiangsu and Shantung the disproportion is far greater than in Shansi and Honan. The disproportion also exists in relation to the number of pupils in primary schools. In Shantung this is far higher than in Honan, in spite of the nearly equal number of pupils in primary schools and of population in both.

The accidental nature of the location of schools is brought out still more obviously when we regard it within the limits of smaller areas or when we examine the situation of single schools. Local initiative leads to a development of a network of schools that is sometimes detrimental to general educational interests. For instance, as regards primary schools, there exists in China a system of establishing a school in every village, even when the villages are small and situated near each other and when by establishing a common school for

several neighbouring villages it would be possible greatly to increase the number of pupils and create a much better organised school. In some areas matters are still worse, as in every village not less than two schools are established, one for boys and one for girls, without regard to the fact that these schools are maintained with an insufficient number of pupils and cannot be kept at a high level of efficiency, whilst in consequence of the small number of pupils they are very expensive.

The question of educational circuits in China demands, therefore, much attention, the more so as the transformation of a circuit once it has been established is generally difficult and costly. Certain general leading principles for the laying down of educational circuits should be worked out, and the choice of every place in which a school is to be established should be considered by the authorities from the point of view of these leading principles. For this, special study of each given area is necessary, and local school authorities should be called in to join in this study under the direction of the chief authorities. It would be advisable for the Chinese education authorities to interest themselves more closely in foreign organisation and methods of work in this connection.

PROPOSALS

1. Leading principles for the reform and future development of a circuit of kindergartens and primary schools should be worked out by the provincial education departments in consultation with the Ministry of Education. Detailed work should be entrusted to the district education bureaus.

The ratification of all places in which public primary schools are established should come within the competency of the superintendent of the district education bureau.

2. It should be the task of the provincial education departments to work out, in understanding with the Ministry of Education, the chief principles of reform and development of the circuit of secondary schools and to collect detailed information on this question. It would be advisable to consult the opinion of specialists in this work, especially in matters of vocational schools. The sanctioning of places in which secondary public schools may be opened should come within the competency of the commissioner of education.

3. Studies on the location of higher schools and the division of these schools for purposes of specialisation should be undertaken by the Ministry of Education in consultation, as regards the economic needs of the country, with the National Economic Council.

CHAPTER IX

RATIONAL UTILISATION OF SCHOOLS

CONSIDERING the great lack of schools in China and the large number of children that from year to year cannot obtain access to those there are, it is astonishing what little advantage is on the whole taken of the schools and means of education actually at the country's disposal. In the school buildings a large number of apartments are used for inessential purposes, for theatrical representations, for celebrations, as store-rooms, for slight auxiliary activities, and so on. Large and luxurious library space, and laboratories, bearing no relation to library and scientific needs, are sometimes set apart, and even the rooms used as classrooms generally contain far fewer pupils than they could accommodate. And there is a surplus of teachers in relation to the number of pupils. We shall have occasion further on (pp. 80–84) to consider in closer detail the insufficient utilisation of primary schools and teachers. If the number of pupils to each teacher was increased from 20 to 40, then with the same means as at present it would be possible to teach not 8,785,000 but 17,570,000 children, and by raising the scale to 50, which would still be a lower figure than in many countries that lead in education, it would be possible with these very same means to teach over 22 million children.

These anomalies as regards both space and personnel are still more marked in the secondary and higher schools.

In secondary schools the average number of pupils to a teacher is about 10, and in the higher schools considerably less. In 1930–31 higher schools in China (that is to say colleges and universities) contained 25,018 students, whilst there were 5,636 teachers (on an average about 4½ students to one teacher). 4,400 final certificates were issued, so that the number of pupils completing the course is less than the number of teachers! It is true that in secondary and higher schools many teachers are only partially occupied—this circumstance somewhat extenuates, but does not change the essential fact that the teacher in Chinese secondary and higher schools is charged with pupils to a slighter degree than in any other country. A particular circumstance

favouring the insufficient exploitation of buildings and teachers' work in China is the custom of making a minute division of schools with regard to organisation and sections. There are departments, faculties, sections, subsections and so on. And sometimes there will be several schools, organised on the same lines in the same locality. This is most noticeable in Peking and Shanghai, where there are several universities with similar divisions and sections, each of them having expensive equipment and giving lectures for a small number of students. Sometimes there will be a special section of a higher school with lectures for a few, or even for one pupil.

As regards secondary and higher schools the now existing provision of buildings and staff of teachers would allow double the number of pupils, and with proper reorganisation treble. The present number of administrative officials would be sufficient for a many times larger number of schools. The custom in China, existing also in many European countries, of morning and afternoon school, with an interval of from 1½ to 2 hours, is not economical. During the interval the school is only partly emptied, and as the remaining children require care and supervision by the teachers the cost of maintenance of the school is increased. Other considerations come into play. With the introduction of only one daily attendance at school, the same school building could be made use of twice over, especially when there is a lack of school buildings, some children coming in the morning and others in the afternoon. The number of attendances would be much increased, and also the number of children receiving instruction. This custom is practised in some countries since the war where, in consequence of the quick development of education, it has not been possible to keep pace in building new schools.

The system of morning and afternoon school is troublesome for the children both in town and in the country. For parents in difficult material conditions it would be much easier if instruction were so organised that the children could spend half the day at home.

This applies chiefly to the primary schools, where pupils do not live in hostels, as middle higher-school pupils do.

Besides schools in the strict sense of the word, China has different institutes for scientific investigation organised in a

not less wasteful manner, with large buildings, extensive grounds and expensive equipment bearing no relation to practical needs. Even institutions for adult education astonish by their costly and extravagant organisation. As an example of such an expensive organisation of education for the masses we may note the one in the district Ting-Hsien, where enormous sums are used to provide for a mass of pupils but where in reality only very little work is achieved.

PROPOSALS

1. School authorities ought to make due arrangements for the far greater exploitation of school buildings and teachers' staffs, a matter that brooks of no delay in the present conditions of China. Schools or classes with insufficient number of pupils, situated in the same neighbourhood, should be formed into one school. In cases of schools for different sexes, they should be changed into co-educational ones. Schools frequented by a very small number of pupils, where the number cannot be increased, should be changed into travelling schools, or, in extreme cases, dissolved, and the teachers transferred to other schools in which they can be employed teaching a larger number of pupils.

2. Instruction in primary schools should, as far as possible, be once a day only, and should take place normally in the forenoon. The school buildings, in case of a lack of a sufficient number of schools, should be made use of, where conditions allow, for afternoon schools for other children.

3. The division of public secondary and higher schools into faculties, departments, sections, etc., ought to be particularly studied by the school authorities and such sections as are insufficiently attended should be abolished, unless their maintenance is necessitated by some particular reasons. In the same towns (for instance, analogous departments of higher schools in Peking or Shanghai) they should be amalgamated.

PRIMARY SCHOOL NO. 18 IN PEIPING

Facing p. 64

CHAPTER X

SOCIAL SELECTION OF SCHOOLCHILDREN AND STUDENTS

THOUGH the organisation of public instruction in China is paid for with contributions from the entire population, we yet observe a favouring of the children of better-situated parents or of such as are in some way privileged. This is reflected in the localising of schools, in the system of entrance examinations, in the fees charged and in the distribution of scholarships.

Public kindergartens, which in the organisation of public education ought, above all, to be situated in the lowlier quarters, where they are most needed on account of the extreme poverty of the parents or because the mother works away from home, are frequently established in quarters inhabited by a relatively wealthy population, sometimes even in the richest quarters. Admittance to the kindergarten is subject to an examination in order to select the children most developed mentally and physically, those exactly who need the kindergarten less than others and who are normally the children of wealthier parents. In addition, public kindergartens have mostly to be paid for, thus becoming difficult of access for the children of the poorest classes. It should be noticed too that this same character applies to the kindergartens attached to the normal schools, which are supposed to serve as examples for the future teachers of what ought to be and which in reality are examples of what, socially, ought not to be. As a consequence the whole education system is adapted to children requiring this kind of education less than others. This same favouring of the wealthier classes we find in the selection of pupils for the public primary schools. Generally far more candidates apply than can be accepted. And here again examination decides, favouring the children most developed mentally and physically (there is an examination in physical development) and who belong mostly to better-off families. Besides, the primary school is generally paid for, slightly, but by all pupils without exception. So here again the school is attended by children of relatively wealthy parents who could easily

afford to organise private teaching for their children if necessary, whilst the children of the poor who could not possibly organise private tuition are kept out of the schools (*v.* p. 93). A still greater favouring of well-to-do people is shown in the selection of candidates for secondary and higher schools. In general, at all these schools fees are paid by all students alike without regard to the differences in the financial circumstances of their families. The chief expense is the boarding-house, used by nearly all pupils of the secondary and higher schools. The school is very closely connected with the hostel system (these boarding-houses are adjacent to the schools in the same yard) and it is very difficult for young people living with their parents and not possessing the means of living in a hostel to receive instruction in school. The fees for the hostel are the same for all, consequently it is accessible only to wealthier students.

Scholarships might be of help to poorer pupils. The public education budgets in China often provide for scholarships, and the municipal and provincial ones especially are very considerable. But these advantages are offered principally for very costly studies abroad and consequently can only be availed of by a small number of students. Often they are awarded to candidates who are not the most in need or the most deserving of a public scholarship. Also candidates are frequently sent abroad for study at the public expense without any real necessity, as they could well follow the same studies in their own country. This tendency should be restricted and foreign studies at public expense reduced to the most indispensable minimum, whilst, on the other hand, help should be given from these funds to poorly situated youth for studies at home.

PROPOSALS

1. Entrance examinations to public kindergartens and public primary schools should be abolished. If there are more applicants than places in a kindergarten the deciding factor should be the greatest need, taking into consideration whether the child's home conditions are unfavourable for its development, etc. In cases of excessive numbers of candidates for admission to a primary school, age and the distance from the child's home to the school should decide.

2. Payment for tuition in public kindergartens and public primary schools should be abolished. The expenses of carrying on these establishments should be borne by the State, district or municipal funds with the help of means collected by counties (Ch'u) or in the towns by different quarters—especially in the case of kindergartens.

3. Payment for tuition and for keep in hostels in connection with the secondary and higher schools should be differentiated. According to differences of material conditions, pupils should be freed from these payments or should pay less, and only where it constitutes no strain should they pay in full. The school board should decide on the opinion of the school commission as to the paying category in which the pupils are placed.

4. Public scholarships funds should be used for foreign studies only in cases of special needs and chiefly for such young people as have completed their higher studies at home. These funds ought, on the other hand, to be generously used to help badly situated young people to receive instruction in home schools. Candidates deserving of scholarships should be selected by the Provincial or District Education Commission and the choice ratified by the Commissioner or Superintendent of Education.

CHAPTER XI

THE SCHOOL SYSTEM

THE present Chinese educational system takes for its basis (besides the kindergarten) the primary school for children aged from 6 to 11 (according to the European reckoning of age), the primary school being divided into a lower school for children from 6 to 9 and a higher, for children from 9 to 11 years of age.

Already doubts have been raised on the subject of the age at which the 4 or 6 years' instruction of children begins. Children beginning school at the age of 6 will finish by the time they are 10 years old, or at most 12· too early in either case to choose or begin vocational work, or even to decide on the direction of further education. In view of the apparent impossibility of establishing a longer term of instruction than 6 years, it would perhaps be better for children to begin at least a year later so that education would embrace the years between 7 and 10, or 7 and 12. A later school age would allow of a somewhat more extensive programme and of a better inculcation of the matters studied.

Another doubt is raised by the division of the school into lower and higher, especially in cases where the higher schools are differently organised from the lower.

The division into two separate schools, when it is a question of a bare 6-year course and when the higher school lasts at most 1 year, seems unnecessary. For a child to change schools may here be detrimental to the results of instruction. Besides, such a division may stabilise the existence of the 4-year school and delay the introduction of a 6-year course for all children. It may also cause special complications in the shape of attempts to establish middle schools based on a 4-year instead of a 6-year primary course; it may also tend to hinder the transition from a lower degree to a higher, and so on.

For these reasons, even if we may not reckon on the possibility of establishing exclusively 6-year schools at once, it would seem more advisable to establish, instead of higher and lower schools, some schools with a 4-year

programme and others with a 6-year programme. Such schools might at first exist side by side, but the 6-year schools ought to exist not only in towns but also in the country, and easy access to the 6-year school should be given to deserving children ending their course at the 4-year school.

The programme of the secondary or middle schools takes the programme of the 6-year primary schools as its basis. These middle schools are of three kinds: general middle schools, normal schools and vocational schools. The general middle-school course is of 6 years' duration and is divided into two stages, really into two quite separate schools—a 3-year junior middle school with a uniform programme, and a 3-year senior middle school differentiated in programme (departments: general, teachers', commercial, agricultural, technical). Normal school courses for teachers preparing for lower primary school work are either for 3 years, based on the 6-year primary school, or for 1 year based on junior middle school. Other normal schools preparing not for lower but for higher primary schools have courses of 5 years' duration based on the 6-year primary school and 3 years' based on junior middle school. For vocational schools the plan foresees different types with different courses to be based either on the 6-year primary school programme or on that of the junior middle school. Among other projects are 6-year vocational schools based on the 6-year primary school.

The 2–3-year higher technical school and the 4-year college or university courses (the medical department has 5 years) are based on the full 6-year middle school. A higher school having less than three departments is considered a college, whilst a university is a similar school with three or more departments.

If the secondary-school programme be considered from the point of view of the principle of uniformity, the basing of these schools on the programme of a full 6-year primary school has much merit. In conformity with this principle the transference from junior vocational to higher vocational schools specialising on the same lines ought to be encouraged, as also the transfer from senior normal schools to higher normal schools (normal colleges) and the transfer to some departments of higher schools from middle normal

schools and vocational schools having a full 6-year programme.

Grave doubts in the proposed scheme may be awakened by the organisation of teachers' schools of very low level. Three-year junior normal schools and 1-year schools based on the junior middle schools cannot provide sufficient training for the profession of teaching. And candidates are admitted at much too early an age.

Doubts are also aroused by the too thorough-going differentiation of the senior middle school. The division of such a school which usually has no great number of students or of professional teachers nor any great quantity of materials into a whole series of departments is most uneconomical (there being few pupils to each department). Nor is instruction sufficiently concentrated in the sphere of the speciality included in the titles of the department. There are, for instance, agricultural departments, engineering departments and so on, but instruction in agriculture, engineering, etc., is not concentrated each in its own department.

From the point of view of practical needs it does not seem advisable to create numerous separate junior middle schools without providing easy access to senior secondary schools. The young people who have finished at these schools and enter at once into life are not prepared for any definite work. It would be desirable either to connect these schools with the senior middle schools or else transform them into schools of a practical, vocational character.

The lack in the educational organisation of any provision for part-time schools designed for the students who go to work after ending the primary school, or the junior middle-school course, is very much to be deplored. For this very numerous section of the younger generation the authorities ought to provide a specially planned system of continuation schools.

PROPOSALS

1. The division of primary schools into lower 4-year and higher 2-year schools should cease, and the establishment of higher 2-year primary schools should be abolished. Four-year primary schools should be distinguished as incomplete and as existing only during the period of transition) from 6-year primary schools; whilst pupils finishing the 4-year school should be permitted to link up with the last two years' course at the 6-year school.

2. The age for entering school should be fixed at 7 calendar years (according to the European system) with local right of variation, but not under the age of 6.

3. The 3-year teachers' seminary based on the 6-year primary school and the 1-year seminary based on the junior middle school should be changed to other more rational types of schools or abolished (v. p. 126). Graduates from these schools may at present only be employed as unqualified teachers. One-year teachers' seminaries might be instituted for applicants who have finished the general middle school.

4. The separate junior middle schools, which do not assure easy access to senior secondary schools to applicants, ought to be brought into line and their programmes made to correspond to the practical necessity of preparing pupils for various careers.

5. The division of senior middle schools into departments should be carried out only in so far as separate departments have a sufficient number of pupils and proper means of instruction assured to them.

6. The system of part-time schools should be developed for those young people who go straight from the primary school to vocational work. The task of these schools should be both continuation of general instruction and the imparting of practical knowledge connected with the necessities of their vocation.

7. The present departments of preparatory classes, existing sporadically in different middle schools and schools of higher standard, as a temporary means of helping insufficiently prepared applicants, and justly not foreseen in the school constitution, ought gradually to be liquidated.

8. Access to departments of corresponding specialities in the higher schools ought to be granted to applicants who have finished the 6-year teachers' or vocational middle school.

PART II

THE DIFFERENT STAGES OF INSTRUCTION

In the following chapters we propose to study in greater detail the special questions of different types of school. The reader will note that we are inspired by the general ideas expounded in Part I. There are inevitably some repetitions, but it will be allowed that these repetitions have been necessary to develop our thesis and provide it with the indispensable illustrations of our meaning. With that, it has seemed to us essential to discuss the present situation in the different branches of instruction, not only from a more or less general point of view, but also so as to take account of the special needs and conditions in each individual category.

While wishing that the Government might develop all branches of Instruction, we should like to state clearly that, for the moment, all efforts at reconstruction should be concentrated on the development of primary and professional education. The dangers of an excessive and premature encouragement of secondary education in general and of higher (university) education in particular are recognised with unanimity by all authorities on the question. The development of schools in China ought to be organic and premeditated. Private initiative ought to let itself be influenced by a central pedagogic will in accordance with the necessities of the moment and the needs of the future.

CHAPTER I

PRIMARY EDUCATION

1. Comparative Study of the Development of Primary Education in China

THE school statistics in China show a gradual yearly increase in the number of pupils since the Revolution. In recent years the increase has been most marked in the intermediate schools. It has been less marked in the primary schools, and still less in normal, vocational and higher schools.

The following table gives an idea of the rate of increase in the primary schools between 1915 and 1930:—

School Year	*Number of Pupils*
1915–16	4,122,878
1922–23	6,601,802
1929–30	8,839,434

Thus, in a period of 14 years from 1915–16 to 1929–30 the number of pupils increased on an average about 7 per cent yearly, the average yearly increase during the first 7 years being about 8 per cent, and in the second 7 years about 5 per cent.

If this rate of increase be compared with the rate in countries where universal primary instruction has already been a long time established, it will be seen that it is very considerably greater. In those countries where the number of years of compulsory education remains unchanged, the yearly increase of pupils coincides approximately with the yearly increase in the number of children of school age in the country, amounting generally to about 1 per cent to 1½ per cent. To this increase the yearly budget is accommodated, as also the number of teachers turned out by the teachers' training schools, etc.

The position must inevitably be different in countries which have only recently adopted the system of general compulsory education. If we compare Chinese rates of increase with the rates of increase in the other countries referred to, they do not seem particularly high. It must also

be remembered that the Chinese rates are calculated somewhat optimistically, because each year figures are given for a certain number of schools which existed before but which, owing to unsatisfactory organisation, had not been included in the statistics. Another disquieting fact is that in the first 7 years the rate of increase was greater than in the second. The rate of increase constitutes an indication of the possibility of the quicker or slower establishment of general education.

The increase of 7 per cent yearly would, in present Chinese conditions, permit of at least 4 years' instruction being provided for every child within the next 10 years or so, whereas at the rate of 5 per cent it would be from 20 to 30 years before this aim could be realised.

The present condition of school development in China—especially primary school development—may be estimated by comparing the number of pupils with the number of children of a given age in the country. On this basis we may compare the spread of schools in China with that in other countries, remembering always that in China the number of children can only be determined approximately, whilst in other countries it is fairly accurately known.

The number of students in all schools in relation to that of children from 6 to 15 years of age is in the U.S.A. over 120, in England, Prussia, Czechoslovakia, about 90–100, in Poland, Bulgaria, about 70, in Russia about 40, in China about 10 only.

In relation to its population China has far fewer pupils in its schools than the countries which lead in the field of education. To abolish this disparity China would have to augment its present number of pupils at least 5–10 times.

The Chinese constitution proposes a 4-year course of primary instruction immediately, and, in exceptional cases, 6 years, but it is hoped to introduce a 6-year course for all pupils later on. European countries have mostly 7–8 years' primary instruction, England 9 years; Soviet Russia at present allows for only 4 years' primary instruction, with in certain cases 7 years, but the intention is to pass in the near future to a 7-year system, with the possibility of an extension to 9 years in exceptional cases. The period imposed in China is the same as that imposed by the Soviets, a much shorter period than that generally considered necessary in

Europe. But there is also this great difference between the Soviets and China—that in the latter country the plan to provide 4 years' instruction is only very imperfectly realised.

The degree in which the plan to provide 4 years' instruction is realised can be determined by comparing the number of pupils in primary schools with the number of children of school-going age in the Soviet Union and in China (for China we estimate that the number of children aged 6–9 amounts to approximately 9 per cent of the total population, the number of those aged 6–11 to approximately 13 per cent). In Soviet Russia in the years 1927–28, out of a total of 11,526,000 children aged 8–11, 9,472,000, that is to say 82 per cent, attended primary schools; whilst in China from 1928–29, out of 41,400,000 children aged 6–9, only 8,839,000, barely 21 per cent, attended primary schools. The speedy increase of the extension of primary-school education has, in these circumstances, become one of the foremost problems in the educational policy of the latter country.

The rate of establishment of primary schools in China varies considerably in different parts of the country. The outstanding province is Shansi, where the number of pupils in primary schools in relation to the number of children of school age (estimating these at 9 per cent of the population in accordance with the figures given in the Minister Ch'ien T. Z. Yan's book, *Two Years of Nationalist China*, Shanghai, 1930) amounts to 76·8 per cent. In the province of Manchuria the percentage is 35·5 per cent, in Shekiang 32·6 per cent, in Hopei 29·5 per cent, in Kiangsu 25·5 per cent, in 6 other provinces it fluctuates from 25–20 per cent (Kwangsi, Shensi, Hunan, Yunnan, Szechwan, Kansu); in many provinces, however, it falls below this rate, the provinces with the lowest figures being Kweichow with 8 per cent, Kiangsi with 7·2 per cent and Hupeh with 5·1 per cent (*cf.* map No. 1).

Besides the problem of the extension of primary instruction in general, there is also the special problem of initiating action with a view to speeding up matters in hitherto neglected areas.

Many factors have combined to create great anomalies. One of them is the difference in wealth between provinces, from which it follows that it is mostly in the wealthier

provinces that the spread of primary instruction is most marked (Kiangsu, Hopei, Chekiang), as it is least marked in poorer ones (Shensi, Kiangsi, Hupeh). Other factors are local efficiency, a proper sense of relationship to public affairs and to the administrative authority and, of course, inner tranquillity. The province of Shansi for instance, though poorer than many others, has made great progress in educational matters because it has enjoyed peace for a longer time and has had a more efficient administration. Therefore, in considering the conditions that might advance or retard the development of education in China emphasis should be laid on the question of the efficiency of the administrative-economic organisation of the country in general and of separate provinces in particular, for these constitute the essential bases on which the successful development of public education may be constructed.

2. Financial and Administrative Aspects

In present conditions the contribution of the population to the cost of general education bears no relation either to possibilities or to necessities. Nevertheless, the amount of this contribution constitutes one of the essential bases on which the development of schools may be proceeded with and it ought to be specially studied.

If the data provided are correct, the contribution per head of the population of China for primary education amounts to about 15 Mexican cents, while the rate for separate provinces fluctuates between five and seven times that amount.

The extremely low rate of taxation for purposes of public primary education in China is to be noted; it bears no relationship to the rates imposed in the countries that lead in education. Very noticeable, also, is the considerable fluctuation in the amount of the rate in the different provinces, and in the lesser administrative units (above all, in the districts) the fluctuations of the rate are still more marked.

In this connection it should be remembered that, though the cost of living in China is very low, especially in the country, the payment of a few Mexican cents by each

inhabitant cannot nevertheless suffice for educational needs. In order to improve conditions in the schools and the material situation of the teacher, even partially, and to advance the development of primary education so that universal instruction may be attained within a reasonable time, the scale of this payment would need to be multiplied several times (*cf.* p. 50). The possibility of this increase depends in great measure on a better organisation of the administrative apparatus and on the introduction of a more modern system of taxation.

The fluctuations in the average scale of payments noticeable in different parts of the country are related not only to the general condition of the administrative organisation, the amount of wealth, etc., but also to the greater or lesser degree of energy in the collection of the education rates and to the fact that for purposes of taxation the administrative unit is usually small. In order to avoid unnecessary repetition, we do not propose here to do more than remind the reader of proposals 1 and 2 formulated above, pp. 52–53 (*cf.* also p. 50).

Attention should be drawn to the fact that the money which China spends at present on primary education and on education generally is not spent wisely or as economically as it might be, more especially as China is a poor country which cannot afford to spend improvidently. The want of a clear policy is evident from the fact that in different parts of China under similar conditions and at approximately the same cost instruction is given to very varying numbers of children. It often happens that areas contributing quite appreciable sums for education have fewer children in their schools than areas contributing far less.

School buildings are not economically utilised in China (*v.* p. 62–64). In many places the schools are located in disaffected temples, these being numerous, especially in towns. They often have a number of subsidiary pavilions. But even when the schools are located in ordinary houses, or when special school buildings are erected, the waste of space is remarkable. Only a relatively small part of them is occupied by the school children; other parts are used as teachers' rooms, offices, stores for school apparatus and aids, special work rooms, etc., and there are other parts again which are available but which are only used by the pupils

on rare occasions, if at all. For example, in the lower primary schools of the district Ting-Hsien in the province Hopei the number of rooms in 1931 was three times greater than the number of teachers. True, in some schools, rooms are used as teachers' dwellings, but even the disproportion between the number of rooms existing and the number necessary is enormous. With a normal allowance for lodgings the number of rooms ought only to exceed that of the number of teachers by very few. In larger towns there is sometimes still greater extravagance in the matter of school lodgings. The rooms thus misused could and ought to be used for the accommodation of much larger numbers of pupils.

Not less extravagant is the number of teachers in relation to the number of pupils. This is a matter of importance, as the salaries of teachers constitute the major part of the total expenditure on primary education. In China far fewer pupils fall to the share of one primary school teacher than is usual in countries where general education is more advanced. In China as a whole there are 20·3 pupils to one teacher, whereas in many countries of a high standard of education there are 2 to 3 times as many. This should mean that in the same conditions and at the same expense between 2 and 3 times as many pupils as are actually under instruction could be dealt with by the existing staffs of teachers.

In different parts of China the number of pupils with which the teacher is charged fluctuates considerably, but only in exceptional cases does it reach a high rate. The average number of pupils to each teacher in primary schools for a series of provinces about which we have information is as follows: Kiangsu 25·4, Shansi 22·6, Honan 25·3, Yunnan 22·3, Hupeh 22·3, Chekiang 22·0, Szechwan 20·5, Hopei 17·7, Kiangsi 16·4, Anhwei 15·7, Kwantung 15·7, Hunan 15·3, Shantung 15·1.

This small average is due on the one hand to the maintenance of a large number of small schools with few pupils, especially in the country, and on the other hand to the small number of pupils in each class even in the largest town schools.

The division of schools according to the number of pupils for the province of Chekiang is given below as an example:—

Number of Pupils	*Number of Schools*
9	19
10–19	581
20–29	2,143
30–39	2,187
40–49	1,690
50–59	1,005
60–69	626
70–79	395
80–89	259
90–99	201
100–109	170
110–119	123
120–129	123
130–139	103
140–149	92
150–159	71
160–169	39
169	362
Total	*10,189*

This shows that about half the number of schools (4,930 to 10,189) have less than 41 pupils, which means that even if there be only one teacher he is not overburdened with pupils. Organising instruction on these lines must obviously be very expensive. A school with 20 pupils needs practically the same equipment and personnel as one with 60 pupils. But the cost of instruction per pupil is three times greater in the first case than in the second. This is why some prosperous countries, in legislating for less densely populated areas, do not entirely maintain schools with a very small number of pupils out of public funds. It is evident that in China there should be a stated minimum number of pupils and below that minimum only exceptional schools, and those only temporarily, should be maintained at public cost.

The task of the administration should be to exert pressure on the now existing small schools to augment the number of pupils, or else to close such schools and transfer the teachers to schools where their work could be exploited more economically for the benefit of a large number of pupils.

Sometimes in the country and often in the towns there are schools with a large number of pupils, but in which the

average number of pupils under the teacher's care remains small. Classes consist of few pupils, and yet the average of full-time teachers for a class is 1½, whereas in countries with a high level of education not more than one full-time teacher per class is allowed—though sometimes with a special directing staff in addition. In larger schools the number of pupils in separate classes should be raised. This might necessitate a reduction in the general number of classes of a certain level in the town schools and the distribution of the pupils amongst a smaller number of classes. The number of full-time teachers even in schools having many pupils should be reduced to at most one per class and the syllabus of instruction accommodated to this condition (by efficient distribution of all supplementary occupations and so on). The dependence of the number of teachers on that of the classes only concerns large schools. For smaller schools and in general the basis adopted should depend on the number of pupils; and in the present very difficult conditions not less than 50–60 pupils per teacher should be taken as a basis.

In China the transformation of small schools with few pupils into large schools with many pupils is a question of great urgency, not only for reasons of economy but for the value of the school as such. At present a teacher in a small school is charged with children of different ages in different classes and he must divide his time between them, whereas in a large school when the whole class consists of pupils of the same year his time can be devoted to it alone. In this way quite different conditions of instruction obtain for children attending small schools and those attending large ones.

In order to pass from the system of small schools to that of large ones, it is above all necessary to cease establishing separate schools for boys and girls in the country. In those parts of China where this division exists two schools—and, of course, two teachers—are often maintained in some small village with few children. Even in larger settlements the school, especially the girls' school, is often very poorly attended and hence costs much and lowers a standard which might be high if the boys' and girls' schools were united. The prejudice against co-education should be overcome; in some places co-education has, it should be said, already been introduced.

A not less important matter, though one presenting far greater difficulties, concerns the custom of establishing a separate school for every village, regardless of whether the village is large or not, or of whether it might not join with a neighbouring village in sending the children to a common school.

In many countries a struggle has been initiated against this long-standing system of separate schools, thus raising the problem of a rational network of schools, uniting villages for educational purposes in order to obtain large concentrations of children and schools of greater value. An example of the irrational solution of this problem in China is the distribution of schools in the VI district Ting-Hsien, one of the comparatively well-organised Hsiens in the domain of education.

It will be seen from the attached map (No. II) that in villages situated close together separate schools—as a rule two, one boys' and one girls'—are maintained. The increase in expense and the difficulties thus set in the way of a more progressive organisation of instruction are, of course, enormous. The boys' and girls' schools should be joined and one common school organised, which children from several neighbouring villages could attend. The number of schools could be easily reduced and the average number of pupils per school raised several times.

The keeping to the principle of separate schools for separate villages is the reason that even in thickly populated neighbourhoods the number of pupils per school is often no higher than in thinly populated areas. Sometimes it happens that in thickly populated neighbourhoods the schools are divided into boys' and girls', whereas in less populated ones they are co-educational.

The effect of a reorganisation having as its aim the better exploitation of buildings and teachers' staffs by increasing the number of pupils and the transition from schools with few pupils to schools with many should be very important, influencing not only the level of instruction in the schools but augmenting, possibly doubling or trebling, the number of children receiving instruction. It should also provide a strong impulse towards the fuller realisation of the scheme for universal education in China.

3. The Problem of Compulsory Education

The idea of introducing universal instruction according to a defined plan and in a strictly determined number of years was first taken up in China in 1920. It was then proposed to set up a scheme of universal instruction of 4 years' primary schooling all over China within the 8 years 1921–28, the plan of action being the following:—

1921—provincial capitals and open ports
1922—country seats and centres
1923—towns with over 500 families
1924—towns with over 300 families
1925–26—towns with over 200 families
1927—villages with over 100 families
1928—villages with below 100 families.

In 1930, as this project had not been realised, a new project for universal instruction on a 4-year basis was introduced. It was to apply to all China and 20 years was allowed for its realisation, the first 5 years to be devoted mainly to the establishment of normal schools, and 15 years being allowed for the development and spread of the 4-year primary instruction scheme. During the period that has to elapse before the ratification of this project, no essential action has been undertaken with a view to its realisation.

Doubtless a great hindrance to the execution of both these projects has been such incalculable factors as political disturbances and armed struggles in the country or misfortunes like floods and famine. Nevertheless, in the very initiation of these projects certain drawbacks are perceptible and grave doubts may be entertained as to their chances of realisation.

As long as the Central Government has no proper system of taxation and an inefficient administration for the collection of taxes it is impossible to count on its being able to supply the necessary funds for realising universal instruction throughout the whole country. Under present conditions the subventions authorised for this purpose by the Government and even by the provinces can only be auxiliary to the main grants raised by the local authorities, principally the Hsien's but partially the Ch'u, which are more adroit in persuading the population to pay its dues. Furthermore, even if the financial means are assured, it is still indispensable for the

carrying out of such a great and complicated task as the realisation of universal instruction to secure the co-operation of the educational authorities, of the teachers and of the population. In the projects put forward the need for organisation and for the setting up of an elaborate administration was not foreseen. The educational administration must be functioning smoothly, the teachers working in the schools must have their rôle defined, the parents' committees must be organised and set in motion, as also the school commissions and delegates of the local authorities. Propaganda should be undertaken for the purpose of supplying the people with information and rallying them in favour of the scheme proposed.

The plan for the realisation of public instruction itself should depart on many points from present conditions and determine how they are to be gradually transformed. Both projects are only sketchy general conceptions, which even in their present vague form cannot but cause grave doubts as to the possibility of their realisation. For instance, it would be difficult to admit the justice of a system that proposed to establish general instruction within one year for all children of a certain category in a place, or that postulated the certain advance from year to year from organisation in a group of large centres to organisation in smaller ones. Whether an area is ripe or not for the introduction of universal instruction depends on various circumstances, the existing condition of instruction, the means at its disposal and so on. It does not, however, depend on the simple factor of population. The principle of establishing a school in even the smallest village, which is included in this project, would lead to the creation of a mass of small schools and to the organisation of particularly irrational educational circuits.

The idea included in the second project (1930) of arranging to train a large number of teachers before proceeding with the establishment of primary schools also arouses dubious speculation. The sudden establishment of a great number of normal schools could not bring great advantages, since, apart from all else, there is a lack of suitable teachers to give instruction in these schools. It would also seem gratuitous to employ the funds in so one-sided a way and hold back the development of primary schools for several years, especially as China already possesses a large number

of persons more or less competent to teach, many of whom could work temporarily while completing their preparations for training and becoming permanent qualified teachers. And it is impossible to suppose that the normal schools could supply all the teachers necessary during a period of such intense primary-school development. The special task of this period would be to organise on a generous scale different forms of continuation training for active teachers not having qualifications, but without whom it would be impossible to keep up the desired development of primary schools.

This should not at all exclude the speedy development of usual normal schools, but there is no reason why the development of these schools, the organisation of continuation courses for active teachers and the establishment of necessary primary schools should not go on together.

Another doubt as regards the general conceptions concerning the organisation of primary schools is raised by the question of the age of the pupils and the division of the primary school into lower 4 years and higher 2 years with, for the present, the limitation of the duty to attend primary school to a period of 4 years.

As regards the age at which attendance at school becomes compulsory, that of 6 completed years (according to the European system of calculating age) has been fixed. Perhaps it would be advisable to raise this age at least by one year, i.e. to the completion of 7 years, because in country conditions a longer distance to the school, with which it would be necessary to reckon if suitable educational circuits were established, would be more troublesome for young pupils, and also because pupils who begin at 6 will finish school at a very early age, normally, after a 4-year course, at the age of 10; later, after a 6-year course, at between 10 and 12 years of age. Only a small percentage of these children will go to secondary schools. The majority will go to work at home or away from home, and for this they will still be too young. The cessation of instruction at so early an age may often mean a relapse into illiteracy.

As regards the division of primary-school courses into 4 years and 6 years and the limitation of compulsory school attendance to 4 years, as at present, which practically invariably means to the lower primary-school course, if this

division be maintained, inequality in the spread of higher and lower primary schools in different localities of the country must be avoided. The subjoined figures provide abundant evidence of a concentration of higher primary schools in the towns, access to these schools being thus rendered difficult for country children, while at the same time the construction of secondary schools is hindered (see page 89).

Such a division raises serious doubts, especially regarding the establishment of higher primary schools not organically connected with the lower ones, and capable of disturbing the continuity of primary school education and making it difficult for pupils to pass from the 4th to the 5th year of instruction. If conditions do not allow a realisation of 6 years of instruction from the very beginning in all schools, it would be better, having the future in view, rather to admit the co-existence of two kinds of primary schools: of 4-year schools and 6-year schools; at the 4-year schools the children would be compelled to attend 4 years, and at the 6-year one they would have to attend the full 6 years. Also, it should be decided in what circumstances the school was to be a 4-year one, and in what a 6-year. The fundamental condition might be the number of children within the school circumference: e.g., if the number of children of 6–11 years permitted the maintenance of three or more full-time teachers, the school might be a 6-year one, but if only one or two teachers, only a 4-year one. Also, the educational circuits should be taken into consideration, to ensure that 6-year schools exist not only in the towns but also in the country, and that in the country they be distributed fairly equally and so accessible to village children attending the 4-year schools. As regards programme demands, the children completing 4-year school courses should be assured of facilities for easy transference to the 5th-year instruction of the 6-year schools (no special competitive examinations or selection of the most capable, etc. (*v.* p. 67).

For the carrying out of a plan of primary universal education, however, it is not sufficient for the central authority to formulate general principles. The plan must be worked out in detail for local areas, and for this working out local educational authorities should first be called together, especially the superintendents of district educational

PRIMARY SCHOOLS IN 1928–29

	Infant School	Elementary (4 Years)	Higher Primary (6 Years)	Total	Infant School Per cent	Elementary Per cent.	Higher Primary Per cent
Hopei	12,456	752,896	60,844	826,196	1·50	91·13	7·37
Shantung	644	397,569	66,812	465,025	0·14	85·49	14·37
Shansi	208	799,977	35,496	835,681	0·03	95·72	4·25
Kiangsu	6,145	705,980	71,506	783,731	0·78	90·08	9·14
Chekiang	1,617	555,069	49,062	605,748	0·27	91·63	8·10
Anhwei	987	167,675	33,217	201,879	0·49	83·06	16·45
Kiangsi	333	157,164	20,352	177,849	0·19	88·37	11·44
Hupeh	894	106,901	15,426	123,221	0·72	86·76	12·52
Hunan	656	588,151	42,139	630,946	0·10	93·22	6·68
Szechwan	4,558	871,063	100,539	976,160	0·47	89·23	10·30
Kwantung	1,252	401,426	130,116	532,794	0·23	75·34	24·43
Yunnan	592	186,781	26,009	213,382	0·28	87·53	12·19

bureaus, or directors of educational offices in towns as distinguished administratively from the districts. These authorities should then call upon the general administrative authorities to co-operate in the planning and the carrying out of universal education.

The insufficient organisation of this early spade-work is the reason that in many areas where conditions are ripe for the introduction of universal instruction, far from being established, it has not been even systematically attempted.

It should be said beforehand that the province Shansi, in which the number of pupils of primary schools in relation to the total of children of 6–9 years amounts to over 75 per cent, possesses special advantages from the point of view of the introduction of universal instruction. Even the district Ting-Hsien, in which the percentage is only 53 per cent. (17,447 pupils of primary schools to 33,020 children of 7–10 years), also possesses the necessary conditions. In this district a total of 455 villages has 450 active schools. But these schools are not rationally situated, since 122 villages have no schools, 217 have one, and 114 have two or more chiefly because of the separation into male and female. A whole series of schools has an insufficient number of pupils. This applies mainly to girls' schools. Meanwhile, other places have many applicants but have no schools. A district having a total of 33,030 7–10-year-old children employs 488 teachers in its schools, so that on an average there would be about 68 children to a teacher (hardly 362 pupils). These constitute circumstances in which with a certain amount of economising and the better locating of schools it would be possible to begin universal instruction, if not for all children of school-going age, at least for those in their first school-going year to begin with and continuing thereafter so that within 4 years the school would embrace all 4-yearly groups. And during this period there would be the possibility of adding to the school buildings and the number of teachers where necessary without considerable immediate expense.

Another example—from the town of Hangchow (in the province Chekiang)—where, unlike the country, the question of the location of schools plays no great part, the normal development of schools is hampered because children are received into the schools at too late an age. The average age

of children in primary school (six years) in this town shows as follows:—

HANGCHOW—CITY

Age of Children in Primary Schools

Under 6 years	0·3 per cent	10 years ..	16·69 per cent
6 years ..	2·16 per cent	11 years ..	12·59 per cent
7 years ..	6·97 per cent	12 years ..	34·73 per cent
8 years ..	13·89 per cent		

Such a late school age might be excused in places which are very neglected and the number of schools in relation to the number of applicants is very small, or where schools are newly established, but not in a large town with permanent and relatively highly developed schools.

If the introduction of universal instruction in the near future be seriously undertaken, it should be possible to decide beforehand as to the age-scale of children to be admitted to school, so as to be able to begin compulsory public instruction, at any given moment, with the youngest group.

When working out detailed plans for the realisation of universal education it has to be kept in mind that in China at the present moment, merely by making better use of the existing school premises and teachers' staffs, it would be possible to attain a very considerable increase in the number of places available for pupils—and this at once, within the space of a year or so. Thus if all these new places be destined for one yearly group only, preferably for the youngest (according to present legislation for 6-year-old children), then it would in many cases be possible to find place to accommodate all the children of that group. Continuing later, from one year to another the introduction of all the children of every new yearly group (i.e. always children of 6 years of age), it could be so arranged that after the lapse of 4 years all 4-yearly groups (6–9 years of age) would be attending school, and after 6 years all the 6-yearly groups (6–11 years). The decision to accept children of the youngest yearly group can be taken, however, only then when there are serious grounds for the belief that during the following 4 (or 6) years, in the course of which the total number of

pupils will be increasing annually, necessitating new school premises and new teachers' staffs, means will not be lacking to satisfy these needs. All the consequences of such a plan should be studied very carefully beforehand and a proper organisation prepared for the later development of the scheme. The task of the central authorities in such a case should be no more than the issuing of general orders concerning compulsory school training and the appointing of the local authorities for the carrying out of local work involved. The decision as to the circumstances in which school training is made obligatory over a whole province or Hsien or city might be left to the provincial Education Departments. But, on the other hand, the work of preparing detailed plans, the submitting of motions concerning the introduction of compulsory school training and the organisation of further effort should become the task of the Hsien Education Bureau (headed by a superintendent) or, in cities, of the Municipal Education Authority.

4. Some Educational and Social Suggestions

Simultaneously with the endeavour to make primary instruction popular in China, it is necessary to aim at giving the idea a more public character and bringing the organisation and school programmes more into accord with what the newly undertaken reconstruction of economic and cultural relations implies.

In this connection it is first of all necessary to secure an increase in the material endowment of primary schools and in the remuneration received by teachers of such schools. It is also necessary to render it possible for children coming from different areas to attend such schools.

In China nowadays the endowment of a primary school is a very different matter from the endowment of a secondary school, and more especially a high school. In no country with organised education is the primary school at such a disadvantage.

The figures given on pp. 51–52 form a good illustration of the degradation of the primary school and its teacher under the Chinese educational system, which degradation obviously conforms not at all to the ideal of the uniform

school constitution, which is ostensibly the basis of the system. Such differences have arisen owing to the present independence of the sources of maintenance of the different kinds of school (*v.* p. 51). The effect of these differences on the unity of the school system now under development is being taken into account, as is also the urgency of ensuring to primary schools the supplies indispensable for their actual needs. The improving of the material situation of the primary-school teacher has become a problem of State importance, to the same extent at least as the uniformity of the scheme proposed.

Access to public primary schools in China is not given equally to all children, least of all to those children who, owing to their home conditions, most require education. Nowadays it is mostly the children of the better-off classes, and of people who have connections and influences, who are admitted. Various factors account for this.

First of all, since very often the children of the poor are set to work, and since very often also the poor are unable to provide their children with clothing, and since they are often not very conscious of the value of education, they do not demand access to the schools for their children as often as wealthier parents. For this reason, schools exist which have vacant places but which the poor population residing in this vicinity does not avail itself of.

It is surprising that the education authorities should tolerate such a state of affairs without trying to make the parents conscious of their duty to their children or making any effort to bring the children who, owing to general social conditions, are most neglected to school.

Nor is this all. The admittance of children into primary schools in China is organised in such a manner that when the number of applicants exceeds the number of places a selection is made whereby preference is given to children of parents who are more wealthy and influential. Apart from direct influences exercised by parents, the selection is also based on a preliminary examination. The children have to pass an examination at which their knowledge and capacities are tested, and their physical development taken into account. Such an examination favours children who are in better circumstances at home and rejects those children who, from the social point of view, most require school care. Nor

is any attention paid to the ages of the applicants, nor to whether they live far from school or near—in a word, all the factors which might make the selection of applicants more impartial are neglected.

Primary-school fees are very often demanded, too, and this assures admittance to the children of more wealthy people. The fee is usually the same for all pupils and is transferred to the State treasury for general purposes, not for educational purposes in particular.

Such a tuition fee, where charged, usually amounts to not less than 2 Mexican dollars or 3 or 4 Mexican dollars per year. Compare this with the average cost of education of one pupil according to the statistics for 1928–29:—

Province	*Average Yearly Cost of Education of 1 Pupil in Mexican dollars*
Hopei	6·4
Shantung	9·3
Honan	5·0
Shansi	4·1
Shensi	4·2
Kansu	2·1
Kiangsu	9·6
Shekiang	6·4
Anhwei	11·8
Kiangsi	6·5
Hupeh	16·1
Hunan	6·8
Kweichow	6·5
Szechwan	5·4
Tukien	7·5
Kwantung	12·5
Yunnan	11·0
Liaoning	8·0
Kirin	14·8
Heilungkieng	19·2
Jehol	8·0
Ningsia	8·8
Suiynun	18·3
Sikong	12·8

In every place where a tuition fee is collected for training in primary schools it represents for the administrative unit maintaining the school a considerable refund of outlay. The

whole budget of actual public expenditure on education should be appraised only after taking these refunds in the form of tuition fees into consideration. In some cases the maintaining of schools may even prove a lucrative business for the local government.

This, however, is quite contrary to the general idea of the organisation of primary education. Tuition fees in public primary schools should be abolished immediately, more especially for children who are unable to pay them, but such fees should be abolished for all children in general attending such schools. Compulsory education can only be imposed and assured when the primary school is free of charge.

As far as programme and methods are concerned the public primary schools, and indeed all schools and scientific institutions in China, do not pay sufficient attention to those scientific and educational elements which are indispensable for a society undertaking the task of a speedy and decisive intellectual emancipation of the country. It should be a care in the present reorganisation of the public life of China, and a special task should be the defining of the general lines of action for the reconstruction of social, cultural and economic conditions, this to be attended to by the National Economic Council which was instituted not long ago. Around these problems, in the widest sense, all the endeavours of scientific institutions should be concentrated and the scientific and educational activities of the whole programme determined.

The primary school is in this case only one link in a chain; a very important one, however, because the school affects the bringing up of the whole mass of citizens and represents its needs. From this point of view the present programmes and methods of primary education may cause some misgiving.

The usual method of school teaching is by lectures by which the teacher imparts some knowledge to the class as a whole, the pupils being mere receivers of this knowledge, for in Chinese schools pupils are seldom asked by teachers to reply to questions, and still more seldom are they given any independent work to do. Such a method favours a purely contemplative attitude towards the surrounding world and provides no impulse to the activity and initiative which are

so indispensable if there is to be any reconstruction of conditions in the country as a whole.

The scientific material in Chinese schools is taken mostly from books. There are no appliances, or insufficient ones, no tools, few or none of the apparatuses which foreign schools make so much use of. Where they do exist in Chinese schools they are rarely used (lessons in physics, chemistry and hand work are few), and then very often only for demonstration purposes with the pupils looking on, not for experiments to be carried out by the pupils themselves.

Too many books are used, sometimes books with the most shabby illustrations, though just outside the walls of the school—in the garden, on the field, in the street—there may be plenty of living scientific material.

Natural science is taught without any direct reference to nature, similarly with geography.

These methods obtain everywhere. This lack of contact between science and life deprives the youth graduating from the schools of the capacity of applying the knowledge secured to life, i.e. it discourages activity.

Nor does the school take any interest in seeing that the children get a knowledge of the life of the society in which they live outside the school, and consider the problems it raises; the school does not concern itself with these conditions, or suggest even the most elementary sociological ideas. With such a character the school obviously remains quite passive before problems which are of the utmost importance to the country.

The Chinese school acquaints its pupils with the organisation of work and with the idea of public life to only a slight degree and exclusively by way of theoretical lectures, instead of directing the attention of the pupils to life in their actual surroundings. The theoretical knowledge of the "3 principles of Sun-Yat-sen" and other Chinese state doctrines remains, in these circumstances, not less abstract than the science of geography or nature learned from books. And the passive sitting at lessons in the schools takes up so much time, as does also military training (now organised), that for other forms of collective work, or play, there is very little place left. Besides, the question of getting the pupils to consider the idea of collective life is not seriously discussed. In many places the division of the sexes on grounds of principle is

ANCIENT TEMPLE USED AS SCHOOL IN CANTON

[Facing p. 96

still admitted, although in China co-education might be very important as a factor in the emancipation of women in private and public life.

Further, it seems necessary to give more care to encouraging in children habits conducive to physical well-being. We are not thinking so much of formal instruction in hygiene, though that doubtless is important, as of the training of children in the care of the body, which is a condition not only of physical health but of self-respect, and in the practice of a healthy regimen. Schools must, of course, pay careful attention to hygiene in their internal arrangements, for children learn more by what they see than by the precepts given them. The low standard of health obtaining in large parts of China is generally recognised to be a grave menace to the welfare of the nation. While there are obviously aspects of it with which the school cannot deal, there are others with which it can, and the responsible authorities should see that it does. We have observed with much interest that in certain places, for example, in Peiping, steps have recently been taken to create the nucleus of a school medical service. While fully recognising the practical difficulties in the way of a wide extension of such a policy, we think that, wherever it is possible to introduce it, it should be introduced. At the age when children are attending the primary school, care for their physical well-being is not a mere addition to their education. It is part of their education, and in some ways the most important part. The neglect of it not only causes much needless suffering and demoralisation to individuals, but involves a lamentable waste of national resources, the most important of which consists of human beings. Nothing in the long run could do more to raise the standard of life of the people of China and to promote economic progress than a systematic plan of using the schools to form habits conducive to good health.

The Scientific Commissions appointed by the Ministry of Education to work out school programmes should include in their recommendations the turning of the school to greater use as a tool in the hands of the builders of the new China.

CHAPTER II

SECONDARY EDUCATION

A. SECONDARY SCHOOLS

1. Introductory Notes

IT is unanimously recognised by the teaching profession in China that the secondary school constitutes the weak point of the national education—and yet it is precisely about this point that the whole educational system pivots. For secondary education is at the very centre of the scholastic edifice, it serves as a link between the fundamental interests of primary education and the specialised interests of higher education. We have found it more convenient to confine ourselves in this chapter to a consideration of those branches of education that belong neither to the primary nor to the higher orders. We will consequently have occasion to discuss, not merely the problems of secondary education in its broad aspects, but also those connected with the formation of the teaching staff and professional instruction, and this in spite of the fact that the teaching staff embraces the graduates of the university or normal school and that professional instruction is not, strictly speaking, a monopoly of the secondary schools, but also part of the curriculum in the primary and higher institutions of professional training.

The constitution and disposition of secondary education in China have been set forth at the end of Part I (p. 69 *et seq.*). *It is immediately apparent that they have been modelled* on the system of education that obtains in the United States. Even the machinery of application has been made of late years to conform with the American conception. If we consider the alternative possibilities, two extreme conceptions of secondary scholastic organisation present themselves; the German and the Russian. In Germany the duration of secondary instruction is of 9 years, following upon a primary instruction of 3–4 years. Here the secondary school provides purely theoretical instruction, with subdivisions for classics, modern languages and science. Along with this general secondary education has been created a highly

developed system of secondary education for professional students. These professional institutions are either finishing-off schools for the apprentices of various trades or else advanced professional training-colleges that require a certificate of previous practical work extending over a period of several years. In Russia, on the contrary, secondary education provides, from the outset (that is to say, on the student's graduation from the primary school), theoretic instruction plus some practical or manual occupation. This combination of secondary instruction and practical training lasts from 4 to 5 years. China, in accordance with the American model, follows a middle course. Whether this course is one likely to satisfy her peculiar requirements we will have occasion to consider at a later stage. But what we can affirm here is, that the American system, with its numerous subdivisions, implies a type of secondary instructor highly qualified in the various branches of both theoretical and practical studies that is but rarely available in a country like China, in the actual process of development. Furthermore, the American system is extremely expensive, the inevitable result of subdivision carried to such a point being the fragmentation of the students in a large number of small groups; this characteristic is to be observed in the majority of Chinese secondary schools.

It would have been useful to quote here a few statistics as to the rôle of secondary schools in the educational system of China. Unfortunately, however, as the various systems have frequently been modified and a multiplicity of influences are at work, it is particularly difficult to determine even what actually exists at the present moment. Furthermore, in the course of the last ten years, secondary education has traversed a period of violent evolution and the statistical data relating both to the schools and to the pupils vary very considerably from one year to another. A few figures will suffice to illustrate this state of affairs. In a memorandum communicated to us in October 1931 by the Ministry of Education, the number of secondary schools is given as 2,066 and the number of pupils attending them as 307,906. For the school year 1928–29, however, the corresponding figures were 1,056 schools and 191,664 pupils. The latest figures available,

given to us shortly before our departure by the Ministry's representatives, were 13,596 secondary schools and 783,140 pupils. The vast area of China and the difficulties prevailing in the matter of communications with the provinces of the interior serve to explain that, notwithstanding the organisation of comparable statistical censuses, the data concerning the present situation cannot always reach the central bureaux within the prescribed time-limits. Thus, for example, the detailed statistical statement referring to approximately 300,000 pupils attending the secondary schools was communicated to us in October 1931. A note points out, however, that for eleven provinces and communes covered by the statistics, the data relate to 1928, while for five others the 1925 figures were taken as a basis.

It must therefore be assumed that the real totals are far in excess of those indicated in the report, for among the provinces and towns for which old statistics have been used, we find such towns as Peiping and Tientsin, where a considerable development in secondary education during recent years may be taken for granted. Nevertheless, the figures—13,596 secondary schools and 783,140 pupils—entered in the latest statistics seem to be surprisingly high. If this latest information were really accurate, we should be witnessing an extraordinarily unhealthy growth, a too rapid development.

The inordinately rapid development of secondary education is evidenced by the statistics relating exclusively to certain of the provinces and which were subjected to special study. By way of example, we may cite the conditions obtaining in the province of Shekiang, where the personnel concerned with secondary education increased from 6,814 for the school year 1912–13 to 16,735 for 1929–30. For these same years the corresponding financial burden rose from 434,746 Mexican dollars to 1,889,373 Mexican dollars. With these definite data, furnished by the Provincial Government of Shekiang, before us, and considering that they date back to October 1931, it is somewhat difficult to believe that the latest figures prepared by the Central Bureau giving, for the Province of Shekiang, the improbable total of 49,062 pupils attending secondary schools, should be correct. It has, unfortunately, been quite impossible for us to make a critical and detailed analysis of these statistics,

but, for the reasons set forth above, the total figure of 307,906 secondary school pupils has probably already been exceeded, while the figure of 783,140 would seem, on the contrary, abnormally high and is perhaps due to a simple error. Appended will be found a general table (Map III) showing the number of schools and the number of pupils in the different grades of secondary education, distributed over the various provinces; in compiling this table we utilised the figures which served as a basis for the memorandum communicated to us by the Ministry, and we arrived at a total in the neighbourhood of 300,000 pupils, a figure which is perhaps rather less than the true figure. According to the information furnished by the Ministry, these figures include not only the official secondary education institutions, but also the private schools which are recognised by the Government.

2. The Function of Secondary Education in the National Education of China

Any critical study of secondary education should have as its starting point the actual rôle allotted to this system in the national programme of education as a whole. In Europe, secondary education is, in an ever-increasing measure, becoming the nucleus of the policy of public education. We cannot enter here into the details of the history of school institutions, but we should nevertheless mention that, in China and in Europe for that matter, secondary education is of more recent date than the university and the primary school, but the position it occupies is constantly growing more important. Whereas the universities, in addition to the research work which they accomplish in Europe, tend more and more to produce a higher intellectual class for certain determinate liberal professions; and whereas primary education, regarded as the very foundation of any system of national public education, is available to all without distinction, the secondary school is the laboratory in which the intermediate classes are trained, those which supply the majority of Government servants and business men in any country. The mission of the secondary school is to give, over and above primary elementary instruction, another form of education, complete in itself, which enables those

who have benefited by it to take up a position in life immediately. Historically, the aim of the secondary school is, first of all, to prepare candidates for university studies. It continues, moreover, to fill that rôle. In addition to this, however, it has permanently undertaken the task of giving to the middle classes who will not pursue higher grade studies, an education which is complete in itself. It is for this reason that it is extremely important that the secondary school should not be content with allowing its pupils to acquire a more or less mixed knowledge of subjects which they will need for the practice of a profession; graduates from secondary schools must be armed with a general education constituting a whole and which, without being universal in character, gives them all they will require in life. Not only may this education be differentiated, it is essential that it should be, and it is in this differentiation that it is possible to assure a certain uniformity for an entire nation, that we may establish a homogeneous structure of the great middle classes of a given country. It is of capital importance that the cultural standard to which the different secondary schools bring their pupils, that is to say the quality and degree of education given, should approximate to uniformity. It is also necessary that this education should be differentiated according to the varied requirements of practical life and, while remaining constantly in close contact with realities, bring its mission to a successful issue.

In China, however, secondary education, in addition to these functions which devolve upon it in Europe and America, has to fill another and vaster rôle of a totally distinct character. In the chapter dealing with the universities we have stated that, in reality, present-day China is a product of her universities, that is to say, it is in these universities that the fusion of modern European-American thought with Chinese thought is taking place. The first stages in this evolution, not only as regards the special function of the universities but also and chiefly from the point of view of general culture, must be traversed during the period of secondary study. Whereas primary education is based essentially on national tradition and is given in the mother tongue, in the system of secondary education, one or two foreign languages and, in addition, in Europe and America, perfected methods of teaching the natural sciences, contri-

bute their share to a preparatory culture of a more definitely national character for the performance of indispensable tasks. It is not merely as the result of chance that nearly all, if not all, the Chinese universities are in close liaison with the secondary schools which serve not only as a medium for the practical study of pedagogy, but also for the preparation of future university students. For the few universities where the Chinese language has not yet been adopted for teaching, these schools serve, primarily, to enable future students to acquire a knowledge of foreign languages, which they will need in following higher education courses to the best advantage. But with all the other universities (and they constitute the big majority), the secondary schools are in close contact and are familiar with the tasks the latter have set out to accomplish. It is obviously undesirable, as we shall show later, that these secondary schools should be modelled exclusively to meet university requirements, but it is no less necessary to recognise that the idea (first adopted in the universities) of adapting the resources of national culture to the exigencies of a new era has now also penetrated into the secondary schools with the intensive development of the system of secondary education. Consequently, it is in the secondary school that the delicate intellectual problem of bringing into line the old Chinese tradition and Chinese thought on the one hand, and the culture of Europe and America on the other, has now to be approached for the first time. In these conditions the secondary school takes on, so far as China is concerned, an importance still greater than in Europe and America; sufficient emphasis has not been laid on the fact that secondary schools cannot be purely and simply transplanted from Europe or America, but should have, or should acquire, an essentially Chinese character. It is not a matter of studying or reproducing what has been done in Europe or America by A or B; the very structure of the Chinese secondary school must ultimately be determined by the actual requirements of Chinese culture and the needs of the people.

If, on the basis of this preliminary survey, it should be asked whether secondary education as it exists at present in China succeeds in accomplishing its national mission, one is obliged to answer that it does not. There are, it is true, a large number of schools which, as we were able to judge

for ourselves, obtain excellent results. But we found that the fundamental cultural problem defined above is not yet receiving sufficient attention and has not yet been taken into consideration as it should be, and that the majority of the secondary schools have been improvised on the basis of a European, American or Japanese type.

By placing, in this way, the system of secondary education as it at present exists in China in such a vast and comprehensive framework, it may be considered that the superficial Americanisation of secondary education is only of an ephemeral and transitory character. Foreign advisers may recognise the necessity for providing the foundation of a modern culture which is really Chinese but, in practice, they cannot collaborate in its creation. The leaders of Chinese thought must themselves take over the management of that creative work and cannot be replaced in the task by others. Neither, of course, can there be any question of advising the Chinese Government to abolish the Americanised system now in force for secondary education and to substitute for it some other system also imported from abroad. As to whether China will find the requisite strengh for effecting the renaissance to which we have just referred, it is, for us, a matter of confidence and hope, but not one on which we are qualified to give instructions or advice. The most profitable utilisation of the existing institutions and their improvement wherever possible, with due consideration of the high mission entrusted to them, should produce everything that is required in this respect. It must, however, be realised that secondary education should aim at giving an education that is complete in itself, and that, for instance, this result will never be obtained by that mechanical teaching of unrelated subjects which is the inevitable consequence of the "credit" system. In this connection the adoption of the technical methods supplied for the organisation of education in the United States leads to serious consequences for China. No country has yet found a system of examinations that is entirely satisfactory. The advantages of the "credit" system for the convenient and relatively easy acquisition of knowledge of a given number of subjects are obvious; but this simplification is obtained only by sacrificing the unity and universality of culture itself. Although, in other spheres, we urged the Chinese people to concern themselves with the

practical aspect of things and to keep their system of public education in close contact with the realities of life, a nation that has behind it such a great cultural tradition as that of China certainly does not require to be told of the importance, from the point of view of practical life and the efficiency of the work accomplished, of this unity in intellectual activity, which we are now accustomed to look upon as a complete form of education in itself. There is, however, no trace of it in the secondary education scheme functioning in China. Here, the foreigner can do no more than call attention to the need for a system of secondary education which constitutes a whole and which shall be complete. He cannot tell the Chinese which parts of their national and cultural heritage should constitute the basis of this self-contained education. It is for the Chinese themselves to discover the elements that should enter into the composition of their natural culture.

3. Weaknesses of the Existing System

While wishing to lay particular emphasis on the foregoing remarks on the problem of secondary education, we propose, in the following pages, to suggest a certain number of improvements which, if properly applied, should lead to the same results as those aimed at in our general observations. We attach special importance to the practical aspect of the questions because we take as a starting-point the assumption that culture does not consist merely of theories and abstract knowledge but constitutes, more particularly, the true basis of individual mentality.

The organisation of secondary education in China has been much influenced by the example of the universities. Its theory, as distinct from its practice—on which we touch later—may be briefly described. It is intended to cover a period of six years, lasting from 12 to 18, which is divided into two halves, that of the junior middle school from 12 to 15, and that of the senior middle school from 15 to 18. In practice, the number of pupils diminishes sharply when the junior stage is passed, and a considerable number of pupils appear to begin their secondary education at the age of 14, or even later. What number of pupils completes a full 6-year course cannot be ascertained, but, as far as

we can judge, it is considerably less then 25 per cent. of the total number attending secondary school at any given moment.

Admission to secondary schools is by examination, partly written and partly oral, and, as in the case of primary schools, the number of candidates appears in most cases greatly to exceed the number which can be admitted. The school year covers a period of eight months, and is divided into two terms. The number of examinations is—to speak with moderation—somewhat large. There is a monthly test, a terminal examination, and an examination at the end of the year, which is identical with the second terminal examination. Graduation, as it is called, depends on getting 60 per cent of the marks in all the examinations taken together. There is a further examination for those pupils who desire to enter the senior school.

The arrangement of the work, both of the junior and senior secondary school, is based on what is known as "the credit system." A "credit" is awarded for each hour of class-work per week during the school year, pupils being required to complete successfully 186 credits in the junior, and 156 in the senior school. The general character of the curriculum is shown by the number of credits assigned for different subjects in the tentative "curriculum standard" circulated by the Ministry.

[1] The curriculum standard for the junior school is as follows:—

Subject	Credits	Per cent
1. Principles of Kuomintang and Civics	12	6·4
2. Chinese	36	19·2
3. Foreign Language	20 (or 30)	10·7 (or 16·1)
4. History	12	6·4
5. Geography	12	6·4
6. Mathematics	30	16·1
7. Nature Study	15	8·0
8. Physcial Training	9	4·8
9. Physiology and Hygiene	4	2·1
10. Drawing	6	3·2
11. Music	6	3·2
12. Labour (i.e. Manual Work)	9	4·8
13. Vocational Subjects	15 (or 5)	8·0 (or 2·8)
Total	186	

It is intended that, in the junior school, roughly one-fifth of the time shall be given to Chinese, from one-tenth to rather more than one-seventh to a foreign language (in practice, English), rather more than one-seventh to mathematics, and just under one-tenth to physical training and manual work.[1]

In the junior school the curriculum is the same for all pupils. When they enter the senior secondary school it divides, and there are then three choices before them: a general cultural course designed primarily for students likely to pass to a university, the normal school (which, in the South of China at least, usually forms part of the senior secondary school), and a vocational course, offering training in commerce or agriculture, and, sometimes, in the case of girls, in domestic science. It appears that at present, in many cases, this choice is nominal rather than real, since the majority of schools are without the staff or equipment needed for serious vocational education. Further, we understand that the Ministry has circulated hitherto only a curriculum standard for the general course, though standards for the others are in preparation.[2]

[1] See footnote on previous page.

[2] The curriculum standard for the general course in the senior school is as follows:—

Subject	Credits	Per cent
1. Principles of Kuomintang and Civics	12	7·8
2. Chinese	24	15·6
3. Foreign Language	26	16·7
4. Mathematics	19	12·2
5. Chinese History	6	3·9
6. Foreign History	6	3·9
7. Chinese Geography	3	2·0
8. Foreign Geography	3	2·0
9. Physics	6	3·9
10. Chemistry	8	5·2
11. Biology	8	5·2
12. Military Training	6	3·9
13. Physical Training	9	5·8
14. Elective Subjects	18	12·0
Total	156	

Education on paper is apt to be somewhat different from education in practice. We turn now to the latter, postponing the vital question of the supply and qualification of teachers for discussion in a separate section.

Judged by the demand for secondary education, as indicated by the number of candidates who, owing to the shortage of school-places, fail to obtain it, the present supply of secondary schools is seriously inadequate. We do not, however, regard an increase in their number as the most essential task of the moment. It is not comparable in importance with that of making increased provision for primary education; nor do we see any advantage in an addition to the supply of secondary schools of the type more common to-day. The urgent need of the moment is not to increase the *quantity of secondary* education, but to improve *its quality*. Many of the defects—its formalism; its remoteness from the interests of the practical works; its reliance on talk and text-books (and, occasionally, talk *from* text-books); its tendency to cram the memory instead of exciting curiosity; its neglect of the inductive and experimental aspects of thought and knowledge; its failure to devote sufficient attention to the cultivation of initiative and a sense of responsibility in students—are similar in kind to those to be found in some primary schools. But they are more general in secondary schools, exist in a more exaggerated form, and produce, if possible, even more serious consequences. The points which have specially impressed themselves upon us are the following:—

(a) Senior secondary schools (and directly, though to a less extent, junior secondary schools) have hitherto been far too much dominated by the requirements, or supposed requirements, of the universities. The tendency for the later stages of education unduly to influence the curricula and methods of the earlier is by no means peculiar to China. It is one to be resisted. Work which is of an academic kind, in the sense that it prepares pupils for study in a university, is one element, and a valuable element, in a secondary school, but is should be only one. The object to be pursued is the creation not of university students but of healthy, alert, and active-minded human beings, interested in the world around them, and prepared to play their part in it. If the secondary school achieves that, it will have laid the

best foundation for their subsequent careers, whether at universities, in business, or in other walks of life. If it does not, it will merely do harm by attempting to cram them with academic knowledge. It must be recognised, in short, that in China, as in most other countries, the great majority[1] of secondary school pupils neither do nor ought to pass to Universities. The curriculum, organisation and methods of secondary schools should be planned with that fact in mind. As far as we can judge, they are not so planned to-day. We think that the Ministry and its inspectors should impress that need on the authorities administering secondary education.

(**b**) The larger the number of pupils receiving secondary education, the greater the variety of interest and disposition to be found among them. The greater the need, therefore, that the kinds of education provided should be sufficiently diverse to meet their differing requirements. Senior secondary education in China seems to us at present far *too uniform in type*. The number of pupils in vocational schools is extremely small compared with those taking a general course of a cultural character. Further, there appear to be very few schools where the curriculum is realistic in the sense that it employs as its material the work of agriculture, industry and commerce, and takes those fundamental human interests as the centre round which to group other studies. The result is that many students pursue a literary course without having any aptitude for it, because no other course is available, that those with a practical bent have no chance of developing it, and that China is supplied by its schools with an unnecessarily large number of men with a smattering of literary culture but without the training needed to enable them to grapple with practical problems.

In our view, three steps should be taken: *First*, no new senior schools giving only general cultural education should be established, except in the cases where proof has been given to the Ministry that, in some particular area, there is a genuine need of one. *Second*, the financial resources and personnel available for the extension of secondary education should be concentrated on adding to the number of schools with a realistic curriculum. *Third*, all senior

[1] As far as we can ascertain, the proportion cannot at present be more than 15 per cent, and it is probably less.

secondary schools should be required, within a period to be fixed by the Ministry, to show that they have made adequate provision for including in their curriculum the vocational courses which now exist, we are informed, largely on paper. If they fail to do so, they should cease to be registered as public schools.

(c) It is not sufficient to add to the number of senior schools giving vocational education. It is necessary that the methods and curriculum of all secondary schools, junior and senior alike, including the curriculum followed by those students who aim at entering a university, should be more closely related to practical realities. It is a mistake to suppose that such a change is required only for those who enter the professions of industry, agriculture and commerce, or that an increase in the time devoted to some form of practical work conflicts with the acquisition of general culture. The academic student requires ample opportunities for such work at school, precisely because his special interests tend later in life to divorce him from it. There is a scientific as well as a literary humanism. The "culture" which ignores it in order to memorise the contents of books is not culture at all.

The practical applications of these truisms are four: *First*, the hours of work in many secondary schools, especially junior secondary schools, are far too long. We have before us the time-table of a boys' junior secondary school, which shows that in the first year the pupils were required to spend 34 hours per week in school, in the second 37, and in the third 34. In the first year 2 hours per week were given to physical exercises and to training as Boy Scouts; in the second year 3 hours to physical exercises, 1 hour to training as Boy Scouts and 2 hours to manual work; in the third year, 2 hours to physical exercises and 2 hours to manual work. In the first grade there were 2 days on which 7 hours were spent on school work, and 2 days when 6 hours were so spent; in the second, on 4 days 7 hours were given to school work and on 1 day 6; in the third there were 5 days on which the time spent on school work was 6 hours. In each case, be it noted, preparation out of class is not included. Such a distribution of time appears to be expressly designed to make children stupid by means of education. There should be much more leisure for individual hobbies;

much more time for games; much more manual work. The whole plan of the junior school, in short, requires, in our view, to be lightened and simplified.

Second, the methods of teaching in some, probably many, secondary schools require to be drastically revised. The assumption that the only, or best, way to teach is to lecture, which we have noticed already in connection with primary education, attains in secondary schools portentous proportions. In class after class which we visited we found teachers, even in junior secondary schools, engaged in delivering orations to rows of silent, and apparently docile, pupils, who were taking notes. In some cases, indeed, we found teachers reading from text-books passages which the pupils copied down, in spite of the fact that they had the same text-books beside them. Methods of this kind, with the interminable monologue which they produce, are at once a sad waste of time and a dreadful drudgery for all concerned. In all schools, but especially, of course, in the schools attended by the elder children, there should be periods during which the children, although attending school, are reading to themselves books which they have chosen or which the teacher has suggested. In all schools it should be realised that the primary business of the teacher is not to impart information, but to arouse curiosity in the pupils, and to show them how, when stirred to life, their interest can be satisfied. In all schools there should be much more work on the part of individual children, and, whenever possible, groups of children, to whom the teacher assigns a problem, and who try to solve it for themselves with his guidance and assistance. In all schools the pupils should be taught to use their eyes and ears for some more important purpose than poring over print and listening to a set discourse. They should be encouraged to observe the life of nature and human beings, to make collections, whether of fossils, insects or eggs, to visit places of interest in the neighbourhood, and to make rough sketches of them, to understand in outline, as they get older, the processes by which they are fed and clothed, and, if possible, to read books without believing all they see in them.

Third, the science work of many secondary schools does not seem to be happily planned. In the senior secondary schools pursuing a general course almost exactly one-seventh

of the time is allotted to physics, chemistry and biology. What calls for comment, however, is less the minor space which the subject occupied in the curriculum than the methods employed in dealing with it. Here, again, there is too much teaching and too little training in observation and experiment. There are obvious difficulties in the matter of equipment, but, though they are genuine, they are sometimes, we think, exaggerated. Except in schools where specialised vocational education is given, expensive equipment is neither necessary nor desirable. A good deal of the equipment required can and ought to be made by the pupils under the guidance of the teacher; in doing so, they will learn that, in science as in other departments of knowledge, the root of the matter is not the costly apparatus, but the minds of those by whom the apparatus, whether elaborate or simple, is used. The important point in the secondary school is not the results achieved, but the intellectual habits formed. The business of the teacher is not to make men of science, but men who know enough of the processes of science to grasp its possibilities and understand what it means to the life of mankind. The exact steps to be taken must clearly be a matter of more detailed investigation than we have been able to undertake. We recommend that a special committee on the teaching of science should be appointed by the Ministry, aided by an expert, or experts, from foreign countries, to make a thorough study of the defects which we have indicated and to make specific proposals for remedying them.

Fourth, we are not satisfied that the teaching of the foreign language—usually English—studied in the secondary schools is as effective as it should be. Languages occupy a large space in the curriculum. In the junior secondary school roughly one-fifth of the time is allotted to Chinese; in the senior school, where a foreign language is begun, Chinese occupies over 15 per cent. of the time and the foreign language over 16 per cent. On the teaching of the first we naturally have no comments to offer. Some improvement, however, it seems to us, ought to be possible in the teaching of the latter. If the evidence given us and our own impressions are correct, many students, after spending approximately one-sixth of their time for six years in studying English, do not know enough of the language at the end of their

school course to use the English works which they ou gh to consult in connection with their subjects of study, and have read few, if any, English books worth reading. We have been informed by university teachers that the knowledge of English possessed even by those students who enter a university is in some cases extremely scanty.

As we have emphasised elsewhere, the most important object of Chinese education ought to be to prepare students for a life of useful work in China. They ought not to sacrifice that paramount end to the acquisition of familiarity with a foreign culture, and we are far from desiring to see a larger space given to English in the curriculum. If, however, English is to be studied at all, it should be studied seriously. Students, that is to say, should be offered good books suited for their years, not snippets expressed in language recognisable as English only because it is not anything else, and containing matter which would be nonsense in any tongue; should learn to write simple English clearly, and should be given some practice in using English works as sources of information. The partial failure to achieve that result arises partly, it may be suggested, through the confusion of two different objectives. The first is the acquisition of English as a tool, by which we mean the ability to consult intelligently works written in that language. The second is the mastery of the spoken tongue. In view of the scarcity of Chinese works on certain subjects in the curricula of schools and universities, the first appears, at least at present, necessary for all students, and may be acquired without the ability to speak the language, just as in Europe a foreign language is habitually read by large numbers of persons who cannot express themselves fluently in it. The second is necessary for students who intend to specialise in English, whether because it is necessary in many parts of China for business purposes, or because they desire to acquire a thorough acquaintance with English literature. We think it probable—though we express no confident opinion on the point—that the level of the students' attainments would be raised if a clearer distinction were drawn between these two aims. What is clear is that the present condition of things ought not to be allowed to continue. As in the case of science, therefore, we suggest the appointment of a committee, aided by specialists in the subject, to make specific recommendations.

(d) There is one aspect of school life of a different kind on which it is difficult for visitors to express an opinion, but which is too important to be ignored. It is that which prompts the frequent complaints of persons intimately acquainted with education in China that not only in universities, but in many secondary schools, there is an excessive degree of indiscipline among students, a chronic and recurrent condition of unnatural tension between them and their teachers. We are not in a position to test such allegations by personal knowledge, but, from the evidence offered us, we are inclined to think that they are often well founded. The causes of the phenomenon are, no doubt, complex, and lie partly outside our province: the early training of children, especially boys, before they enter school; the political circumstances of the country during nearly a generation; the conditions of the teaching profession; and the financial position of schools, which are discussed above. But they are partly, we think, to be found in the traditions, methods and atmosphere of the schools themselves.

An intellectual hothouse is not favourable to a good sense. There is too much mental and nervous overstrain in many secondary schools, with querulousness and irritability as its natural consequences; too little recreation and open-air activities; too little intimate and informal contact out of the classroom between students and staffs; too little corporate life, with its training in social responsibilities. The manner in which similar troubles have been avoided, or partially avoided, in the schools of other countries, is simple. It is by remembering that children are children first and students second, and by attempting to plan the life of the school so that it may meet the needs not of their minds alone, but of different sides of their nature. What this means in practice is that pains are taken to break down the formality of relations between teachers and pupils; that the latter are encouraged to form societies and to manage them themselves; that the elder among them are vested with a considerable measure of responsibility for the maintenance of discipline and the management of school affairs; and that activities outside the classroom play an important—sometimes too important—a place in the life of the institution. It is obvious that the methods of solving the problem used in other countries cannot be transferred *en bloc* to China.

It is equally obvious, we think, that methods appropriate to Chinese schools can be found.

4. Reforms Projected by the Chinese Ministry of Education

We note with the greatest satisfaction that these ideas, whose main features we have given, coincide with the proposals recently formulated by the Minister himself, in official circulars. In a memorandum kindly laid at our disposal we read what follows:—

"With rapid increase in the number of middle schools, it is seen that a vast number of students graduate from the school every summer. Many of them are not financially prepared to enter college for further study. At the same time, they are not trained to follow any line of trade too. So the middle school is not only an educational failure, but also a troublesome social problem. In the spring of this year the Ministry sent a circular dispatch to all provinces and municipalities announcing the imposition of restriction on the establishment of general middle schools, and advocating, on the contrary, the founding of vocational and rural normal schools. This is known as the Guiding Principles for the Establishment of Secondary Schools, which may be briefly stated as follows:—

"(*a*) From the beginning of the twentieth academic year 1913 all provinces and municipalities (directly under the control of the Executive Yuan), labouring under the disadvantage of having either too few vocational schools or too many general middle schools, should not for the time being establish any more junior middle school or college preparatory department in the senior middle school. The latter, however, may open more classes as there were, during the past, entrance examinations, more candidates than could be actually admitted to the school.

"(*b*) From the beginning of the twentieth academic year all provinces should, if conditions permit, establish higher and lower agricultural, technological and vocational schools.

"(*c*) From the beginning of the twentieth academic year all middle schools founded by the district governments

should gradually eliminate the general course (meaning the general school), and should open instead vocational and rural normal courses so that the school may at last be changed into a vocational or a rural normal school.

"(*d*) From the beginning of the twentieth academic year all middle schools should offer vocational subjects. If possible, vocational courses may be established.

"(*e*) All vocational schools or vocational courses offered as supplementary studies in the middle school should be well equipped and furnished with sufficient funds so as to enable students to form good habits of labour and to acquire productive capacity and skilfulness. The existing vocational schools must be financially stabilised.

"(*f*) From the beginning of the twentieth academic year those who want to start private schools shall be encouraged to open vocational schools of agriculture or technology."

We cannot do more than wish the greatest success to these theses.

To conclude this chapter, we will deal with two questions which were asked us by the Ministry of Education. These questions are as follows:—

1. "The period of three years covered by the junior middle school does not seem satisfactory in practice since most graduates cannot afford to enter the senior middle school. The period should be of four years. In the last year of the period vocational courses should be added to the curriculum. The period covered by the senior middle school should be of two years, and exclusively for those who intend to enter college after graduation.
2. "According to the present school system, a middle school may include both the junior middle school and the senior middle school in one school campus. But either the junior middle school or the senior middle school may be independently established. Is this system satisfactory in practice?"

It will be more practical to answer the second question first. The complete separation of juniors and seniors is not to be recommended. Secondary education should cover at least six years of study and should constitute a whole; it

should provide a complete course of education in itself as stated above. The adoption of any solution, which, on the basis of the American system, subdivides the courses into a number of distinct schools, precludes the possibility of attaining this object. For this reason, too, great emphasis cannot be laid on the recommendation that the excessive separation already made between juniors and seniors should not be allowed to become a principle. The secondary school, considered as an entity, has a very definite educational mission to fulfil. Pupils who have not the material means or the requisite aptitude to follow the full six years' course should not attend a secondary school but a vocational school, to which they would be admitted on completing six years' study in a primary school. To extend by one year the junior curriculum in order that this year may be devoted to vocational preparation, and then to give a senior course curtailed to two years of study to pupils who intend to take up a course of higher study, would mean that the principle of complete education is sacrificed to the necessities of a practical training for vocations which do not require university studies. As stated above, we would rather recommend a substantial reduction in the number of secondary school pupils and give a chosen few a sound secondary education. As regards the general mass of those wishing immediately to take up a position in society, there should be provided a number of vocational schools which would receive them not when they leave the junior division of the secondary school, but when they have completed their course of study at a primary school. The graduates from these vocational schools should, in appropriate manner, be given an opportunity of attending not university courses but higher vocational schools, and thus of acquiring the requisite instruction to enable them to qualify for positions of importance. We fully realise the difficulties that prevent the extension of a sound system of technical education as the result of the shortage of professors and lack of funds, but the experiments made, more particularly in Shanghai, lead us to think that this extension is possible even without excessive budgetary expenditure and in a manner that would be extremely satisfactory. The detailed consideration of the question of technical instruction will, however, be left for another chapter.

B. TEACHERS' TRAINING

1. General

The quality of an educational system is contingent upon the efficiency of the teaching staff. For this reason the training of qualified and competent educators constitutes one of the essential tasks to be undertaken in the application of any public education policy. Whereas in every country of high cultural development the choice of teachers for higher educational establishments is determined by individual considerations, the training of secondary and primary school teachers must proceed along certain definite lines laid down by the Government or national legislation. In spite of the difference which exists between the rôle of a teacher who is obliged to equip himself with a knowledge of practically every subject taught in primary schools and that of a secondary school teacher, who must, on the contrary, specialise in certain subjects, the general tendency is now to envisage the rôle, and hence the training of one or the other, from the standpoint of the unity of education. And, in any case, the features common to the two different classes of educators are of far greater importance than those which differentiate their respective responsibilities. This division into two classes of instruction must not result in a scission between the culture of the people and that of the higher classes, however varied may be the ways and means of acquiring and utilising the treasures of a common culture. The simplest solution of the problem is that which consists in establishing intimate liaison between teacher training, on the one hand, and secondary teaching, on the other; this latter teaching constitutes the necessary and previous condition that must be satisfied in order to be able to pursue higher studies and, consequently, to qualify for admission to institutions for the training of secondary-school teachers. The question which arises therefore is that of fixing the standard of education to be required of a teacher. Are his studies to be placed, both as regards duration and quality, on the same level as middle secondary education or should he be asked first to terminate his secondary studies before specialising in the technical preparation of his future vocation? In both cases, care must be taken to ensure that, in

the training of the teacher, he is not taught solely the methods of general pedagogy, but also a thorough knowledge of the different subjects figuring in the curriculum of primary schools. This latter remark applies still more forcibly to the teacher who specialises in secondary education. While, in the case of a schoolmaster, who has young children entrusted to his care, it is of primary importance that he should possess a sound knowledge of the science of pedagogy, the specialised secondary-school teacher should, above all, be thoroughly acquainted with the subjects he is to teach.

The ideal condition would be that the secondary-school teacher should be armed with general knowledge covering as wide a range as that possessed by the schoolmaster and, in addition, that he should have a thorough knowledge of the subject he has chosen. This ideal, however, is scarcely ever attained. In European countries of high cultural standard, particular importance is attached to pedagogy in the training of teachers and to the special subject chosen in the preparation of secondary-school teachers. In the United States, as a result of the legitimate conclusion reached that educational science is of paramount importance, education is now regarded as a distinct subject, a science in fact, which embodies all the relevant sciences such as psychology, sociology, method, didactics, school management, hygiene, etc. An ever increasing number of educators are constantly being released by the universities, that is to say secondary-school teachers familiar with all the subjects covered by the science of education and who have not specialised in one or other of the subjects comprised in the programme of studies. Without exaggeration it has been said that many of these men "know how to teach what they do not know themselves." This is not said jokingly; it constitutes the entire problem of teacher training. Science with regard to the child has rapidly advanced as a result of the consideration given to the different aspects of pedagogy, but the very education of children itself has thereby been jeopardised. Under present circumstances, to combine the study of pedagogy in such detailed form, including experimental psychology and school administration, with the intensive scientific studies that must be pursued by a secondary-school teacher in the matter of natural sciences or philological

sciences, is to undertake a task which is beyond human possibility or which is at least beyond the resources which may be drawn upon in practice during the few years spent in study. The recognition of this fact has, in the majority of European countries, led to a considerable retrogression of the importance attached to pedagogy in the training of secondary school teachers. It is only after great hesitation that many European universities have opened their doors to pedagogy with its numerous subdivisions that are continually increasing. America has taken up an entirely different attitude and has very appreciably developed the science of teaching. The representatives of each of the divisional subjects have wished to state their personal views on the question of teacher training; there was a general conflict on the matter of "credits" and finally there emerged such a multiplicity of subjects in pedagogy that there was no longer any room left for the natural and the philological sciences, that is, for the most important subjects in the system of education. The result, in spite of all efforts to perfect pedagogical technique, has been a general lowering of the scientific standard of secondary-school pupils, and such a state of affairs is most regrettable.

This difference will be shown all the more clearly if we compare type institutions such as the "Ecole normale supérieure" in France or the "Oberlehrerausbildung" of Germany, on the one hand, with the methods of, and the results obtained by, the famous Teachers' College of Columbia University, New York, or the Normal University of Peiping, on the other. China has adopted American educational science with as much enthusiasm as that shown in welcoming anything new and anything American, and in the system of public education in China, which led to such serious consequences for American culture itself.

The consequences have, in fact, been even more serious for China than for America, because the conditions of historic life are different, because—in America—there exists a complex and well co-ordinated educational system, and also because America's requirements in regard to industrial technique are sufficient to guarantee that adequate attention will be devoted to the promotion of the study of physical and natural sciences (much could be said regarding the place at present reserved in the United States for abstract

sciences), while in China, on the contrary, the educational system is still in process of being constituted and she has neither the organisation nor the economic resources that could ensure the necessary adjustments. As stated elsewhere in this report (pp. 23 *sqq.*), China must first of all adapt scientific thought to her own mode of thinking—heretofore literature has predominated—and to her language. It is impossible to conceive this adaptation unless the coming generation of educators possess a sound scientific and specialised knowledge, and all the admiration which the Chinese may show for the results of "tests" and for the practical advantages of the "credits" system should not induce them to attach greater importance to the technique of method than to the various branches of teaching.

Reference must also be made to the very minor place accorded in America (due to historical reasons) to the abstract sciences, such as history and philology—two sciences which are just as indispensable to China as they are to European peoples with a rich heritage of traditions. In the place of the other branches of the abstract sciences, America prefers the methodological sciences, such, for example, as the science of education, which in that country has become one of the natural sciences, and philosophy, which, moreover, is something quite different from the philosophy as we know it in Europe or Asia. China, on the contrary, for the reasons set forth in the chapter on the spirit of teaching (pp. 30–39), must rely on her great historical intellectual tradition and develop her mental historical personality in order to make them a starting-point for a productive study of nature and technique, without forgetting the economic necessities that are forcing China to the adoption of sciences and techniques, for a country like China the development of criticism is of supreme importance. China will never be conscious of her rôle in the world's history unless her schools prepare the way for historical criticism. The past cannot be surmounted by ignoring it, but by giving it the place to which it is entitled in history and by studying the national and human range of the ancient culture it embodied and by according to this culture an appropriate position in the general system of world culture as revealed to us by the history of the human mind.

Furthermore, China needs the science of languages in a manner quite different from the way in which America needs it. In the United States, foreign languages play but a very secondary rôle since all branches of human learning, in so far as they may be put to practical use, are almost entirely expressed in the universal tongue—English—and relations with nations speaking other languages are conducted in the mother tongue of Americans. In China, however, relations with countries which do not speak Chinese are possible only if the Chinese learn to speak foreign languages. In this field also, extensive technical knowledge is indispensable.

It is not our intention to underrate the admirable results obtained by the American science of education or, in particular, the commendable success achieved by the Teachers' College of Columbia University. The science of education is constantly developing in importance but it would indisputably be a mistake to think that the education of the future must exclusively study the science of education in the same way that the jurist must concentrate his efforts on the study of law. Since the secondary schoolmaster must possess a knowledge of far more subjects than are covered by the science of education (and this is also the case in regard to teachers), during the few years available for the training of a future schoolmaster the importance given to the science of education, considered as such, must not be of a nature to minimise or eliminate completely teaching from the subject which the schoolmaster will later be called upon to teach. The science of education, in fact, in so far as the schoolmaster is concerned, can never take the place of a knowledge of his subject.

2. Training of Schoolmasters

The foregoing explanations were necessary to define the point of view from which we approached the question of the training of members of the Chinese teaching profession. The Ministry handed to us a memorandum containing the following statement on the training of primary school teachers:

"The institutions for the training of elementary school

teachers are of five kinds, as shown in the following table:—

Name	Training Period (Years)	Remarks
Normal school ..	3	For graduates of the junior middle school
Normal school department of the senior middle school	3	For graduates of the junior middle school
Normal school for kindergarten teachers	2–3	For graduates of the junior middle school
Teachers' training institute (for elementary schools)	A 1–3	For graduates of higher primary school and students of junior middle school
	B 1–2	For graduates of junior middle school
Village normal school	2–4	For graduates of higher primary school

This general table shows that future teachers have the choice of a great variety of training systems. It is, moreover, obvious that with the very different standards of general education reached by the several provinces of this vast country, there will inevitably continue to be inequalities in the system operating for the training of members of the teaching profession. What may be possible in Shanghai, Nanking, Peiping or in other provincial capitals or large industrial towns of the coastal areas, where a certain modern culture has already been developed, cannot be purely and simply transposed to the village schools of provinces in the interior of the country. For many years to come, China will therefore be obliged to content herself with converting young primary-school graduates or junior secondary-school graduates into qualified teachers. The great drawback is to be found in the youthful age of these future educators. We were nevertheless assured that the young men in question were either much older than might be thought from the number of years spent in study or that they were obliged, in practice, to allow a certain interval to elapse between the

date at which they left school as pupils and their return to the school as masters. We must not, however, be too exacting in the matter of the village schoolmaster training just at a time when public education has been made compulsory. As stated in the chapter on compulsory education, considerable allowances should even be made regarding the efficiency of the teaching staff in the very interest of a general application of the principle of that system of education. The whole situation is naturally the result of a transition which must be accepted. The Chinese teachers of the future must be trained in a perfectly systematic manner and in the spirit just described. The capital question is that of the relationship with secondary education. China has independent normal schools and also normal schools attached to the senior secondary schools. Chinese educators are very much divided in their opinion as to which of these two systems is the better. It is obvious that a school the sole duty of which is to train future teachers can the better devote itself to this work and function more completely in the desired spirit. On the other hand, close liaison with the general teaching sections of a secondary school has the advantage of keeping the future teacher in contact with the system of general training provided by secondary education; this contact, which is necessary, also obviates a professional training of too specialised a character. In an independent normal school, the danger is that the pupils may be trained exclusively for their future vocation of pedagogues and it is therefore to be feared that they will acquire theoretical technique rather than education. The ideal arrangement would no doubt be to require the future teacher to spend a given period in a general section of a secondary school before giving him the professional tuition which he will need later. For the time being, however, this would be impossible in China, for economic and financial reasons. Consequently, during the three years in which the programmes of the general section and the normal section of a secondary school are concurrent, the requisite time is saved for the special work of vocational training by exempting future teachers from the hours of study devoted to a foreign language in the general section of the senior secondary school. This constitutes no drawback in so far as the Chinese village school is concerned, even if there results a difference in training and the standard

of tuition and education between the future Chinese teacher and the graduate from the general section of the same school. It would seem, however, that it is none too easy to find candidates for the teaching profession, notwithstanding the publicity enjoyed by educators in China. It is probably for this reason that the pupil who attends the normal courses of a senior secondary school is totally exempted from the payment of school fees and is granted special terms for his board. All the observations set forth in this chapter in connection with secondary education in general naturally hold good in respect of the independent normal school and the normal sections of senior secondary schools.

To close this chapter on teacher training, we will reply to two questions submitted to us by the Ministry.

The first question is as follows: "Under the system at present operating in China, normal schools admit pupils who have graduated from junior secondary schools and train them for a period of three years. It has been proposed that the normal schools should admit graduates from senior secondary schools, and that they should be required to follow a course of one year's study at a normal school. Which of these two systems is the most satisfactory? Is it possible to apply the two concurrently?"

Our answer is as follows: The better system would certainly be that which consists in admitting graduates from senior secondary schools and in giving them one or, if possible, two years of pedagogical training in order that they may acquire, in addition to the general culture derived from the secondary school, the technical knowledge necessary for the practice of their profession. But as the adoption of this system would involve very heavy expenditure, it would perhaps be preferable—at least for a while—to adhere to the present practice—that is, to require the pupils who have completed their junior secondary studies to pass through either a normal school or through a normal section of a senior secondary school. In a period of transition there is no reason why the two systems should not function simultaneously.

The second question was as follows: "At present, village normal schools admit graduates of higher primary schools and train them for a period of three years. Experience has shown that this system does not function very satisfactorily.

Would it be better to admit graduates of junior secondary schools to village normal schools and give them one year's training?"

Our answer is as follows: The last system is in any case preferable, although this solution must be regarded as a make-shift (*v.* p. 71). The chief point, however, is that one year's professional training seems to be definitely insufficient. As stated above, such a system can be regarded as nothing more than provisional, and to be adopted only during the period of transition.

3. Training of Secondary School Teachers

The training of competent teachers is quite as important as the training of perfectly competent masters for the secondary schools.

"The institutions for the training of secondary-school teachers are of three kinds:—

Name	Number of Schools	Number of Students, 1930	Training Period (Years)
Normal university	2	1,398	4
Normal college	2	314	4
College of education of the university	9	1,386	4
Special normal course ..	9	1,425	2–3

"One normal university is supported by the Central Government, another normal university and two normal colleges are supported by the provinces. Colleges of education and colleges offering special normal courses are maintained either by the Central Government or by the provincial government or by private bodies."

The profession of secondary-school teacher demands not a pedagogic training but rather a *scientific* training, which cannot, in our opinion, be given in institutions other than the universities or in the higher pedagogical educational establishments ranking as universities; in all European countries, secondary teachers receive, in fact, a training which is essentially of a university character. If a com-

parison be made between our remarks on education and the information furnished by the Ministry regarding institutions for the training of secondary-school teachers, it is surprising to note that mention is made only of higher professional schools or higher professional courses. This rôle should really be assumed by the faculties of letters and science in all the universities. Which is why in Europe purely pedagogical institutions play only a subsidiary part in the training of secondary-school teachers. But in China, as in America, special pedagogical institutions are necessitated by the science of education. This is to be tolerated only in so far as this predominance of technical pedagogy remains an accessory and so long as the scientific mind at work in scientific research loses none of its energy. Whether preference be given to a university, a college or a college of education attached to a university, or to a special normal course, the difference is fundamentally immaterial. The external form of these establishments is far less important than the spirit by which their work is animated. When it was a matter of providing training for primary school teachers, preference had to be given to the system of close liaison with the general section of a secondary school, precisely to avoid a precocious specialised training in the technique of pedagogy; but when it is a question of the training—which should be essentially scientific—of secondary-school teachers, this danger should be eliminated at all costs. Too great emphasis cannot be laid on the fact that secondary-school teachers should be, above all, scientists and historians, or philologists having a thorough knowledge of their particular subject and that the possession of the fundamental bases of pedagogy should be only secondary. All the independent secondary normal schools are faced with the danger of specialising to too high a degree their pupils in the special branches of the science of education and of producing—even when matters are regarded in the best light—teachers, or even teachers of higher pedagogical education, but not teachers of physics, chemistry, history or languages. For this reason, we cannot too strongly recommend that a most thorough study be made of the system of training secondary-school teachers such as that adopted in the principal centres of Europe, and that specialists be called in with a view to permeating daily routine with the

general ideas here set forth. The Chinese secondary-school teacher of the future must be an educator specialised in the natural or abstract sciences, and he must of course possess a certain knowledge of pedagogics. Specialisation in pedagogy must be envisaged only for those persons who wish to teach pedagogy, to be superintendents or school inspectors, or perhaps intending to take up high posts in the public education department, and yet, even in the case of these future heads, it would be desirable that they be equipped with a thorough knowledge of a scientific subject in addition to that of pedagogy.

C. VOCATIONAL AND TECHNICAL EDUCATION

The recommendation that education should be more practical and in particular more professional and technical has been constantly reiterated throughout this report. When speaking of the General Programme of Secondary Education we were glad to note that the necessity for so doing has long been recognised by the Chinese Government, which is doing all it can to bring about the reforms that would lead to this end. We shall summarise the problem in this chapter, without insisting further that in all domains of education we recommend closer contact with reality and with professional practice, manual work and training by actual practice (*Arbeitsunterricht*). If this principle were once adopted in the elementary schools it would not be difficult to organise professional training on such a basis.

From the administrative point of view each branch of professional training is subject to a twofold authority. In so far as it is a question of education, that is to say of pedagogy, the Ministry of Education is the competent authority; but as, on the other hand, the future workers are trained in agricultural and industrial work, the administration dealing with agriculture and industry in many cases claims that it should have the final word in any decision taken. From this, many regrettable disputes arise as to which administration is competent and a great deal of unnecessary and costly work. Rival establishments are set up and, above all,

SHANGHAI VOCATIONAL SCHOOL

[*Facing p.* 128

there is a lack of unity in organisation. This is equally bad from the economic point of view as from that of professional training. Besides, the question is already sufficiently complicated in itself not only owing to the multiplicity of professions and the difficulty of securing teachers, but also owing to the importance of keeping a high standard of education. It is to be feared that besides the schools for general education a completely separate system of professional and technical schools may arise, whereas there should only be one system. The ordinary schools should maintain permanent contact with agricultural and industrial activities, and professional schools can only exist if there is a basis of general education on which to work. If these difficulties exist in all countries, they are much more marked in China, for the numerous foreign influences and the absence of any organic system of education, already referred to, have given rise to an extraordinary multiplicity of individual solutions. It seems to us indispensable that enterprises having the education of the people for their aim should be under the authority of a single Ministry. At the present moment Shanghai has two Higher Technical Schools maintained by two Ministries, and if that is not surprising in China, it is because there are sometimes several Universities dependent on a single Ministry in one and the same town. We shall develop this point in the next chapter. If that is true of the expensive higher schools it is not surprising that all kinds of professional schools training boys for non-liberal professions should spring up side by side.

As far as we could tell from what we saw ourselves, there are at present no less than six types of school engaged in professional training in China:—

1st type: Higher Technical Schools (see list below).
2nd type: Intermediate stage between the Secondary and the Higher Schools (for instance, the Provincial Agricultural School at Soochow).
3rd type: Professional sections of the Secondary Schools.
4th type: Independent Professional Schools in continuation of the Elementary Schools.
5th type: Half-day schools for apprentices; factory schools.
6th type: Adult courses.

The observations made in the chapter relating to Universities and Higher Schools in general apply to the first

group. A publication of the Ministry of Education which we have before us distinguishes between National, Provincial and Registered Higher Vocational Schools, the list of which is as follows:—

National	
National Conservatory of Fine Arts	Hangshow
National Conservatory of Music	Shanghai
Sino-French Higher Technical School	Shanghai
Provincial	
Kwantung Provincial Higher School of Engineering	Canton
Shansi Provincial Higher School of Agriculture	Taiyuan
Kiangsi Provincial Higher School of Engineering	Nanshang
Kiangsi Provincial Higher School of Agriculture	Nanshang
Shansi Provincial Higher School of Commerce	Shihyang
Shansi Provincial Higher School of Engineering	Taiyuan
Shahar Provincial Higher School of Agriculture	Shangshiaoku
Kiangsi Government Law School	Nanshang
Kwangsi Government Law School	Kweilin
Shansi Government Law School	Taiyuan
Uunan Government Law School	Kunming
Shikiang Provincial Higher School of Medicine and Pharmacy	Hangshow
Kiangsi Provincial Higher School of Medicine	Nanshang
Harbin Higher School of Medicine	Harbin
Hopei Provincial Higher School of Fishery	Tientsin
Registered	
Wusih Higher School of Sinology	Wusih
Boone Library School	Wushang
Canton Law School	Canton
Fukien Law School	Foochow
Wushang Conservatory of Fine Arts	Wushang
Belonging to Other Ministries	
Peiping Higher School of Salt Administration (Ministry of Finance)	Peiping
Peiping Higher School of Customs Administration (Ministry of Finance)	Peiping
Woosung Higher School of Navigation (Ministry of Communications)	Woosung
Peiping Higher School of Police Administration (Ministry of the Interior)	Peiping

Law and Medical Schools, which are gradually being amalgamated with the Universities or which are soon to disappear, do not come within the scope of this study. Nor do

the Higher Fine Arts Schools. The Higher Technical School of the Ministry of Communications at Shanghai, which is an important and growing institution, does not figure on the list as it is considered as a university. According to the Ministry, the development of the Higher Technical Schools has not been as rapid or as fruitful as that of the Universities and Colleges during the three years 1928–1930; much still remained to be done, especially as regards Libraries and Laboratories. At the same time it is only fair to say that out of 189,000 volumes of technical literature, 44,000, that is to say about a third of the total number, are in foreign languages. The teaching staff of these schools (not counting the administrative employees) increased from 647 in 1928 to 747 in 1930; only a seventh of the number bear the title of Professor or Associate Professor. Most of the schools have preparatory classes which a quarter of the students attend. The number of students increased very slightly between 1928 and 1930; in 1930 there were 3,474; 1,343 students attended the preparatory classes; of the total number about 180 were girls, of whom half attended the Fine Arts and Law Schools. Higher technical training for feminine professions is therefore very little developed.

The Agricultural, Commercial and Industrial branches of the Senior High Schools (Secondary Schools) still constitute the principal part of professional training establishments. There is no need to repeat all that we have said above concerning secondary education in general (pp. 98 *sqq.*) We merely wish to emphasise that excess should be avoided, and that, not only from the point of view of the multiplication of sections in the same school, but also of the matters taught in each branch of studies. A programme such as that proposed as an experiment for the Commercial Section, for instance, seems to us to be over-loaded. Above all, it would be wise not to make the number of subjects too numerous, but rather to give a thorough knowledge of a few well-chosen questions. It is not our purpose here to make detailed proposals as to practice. Only specialists could elaborate really satisfactory programmes and that, only after studying for several months the conditions peculiar to China. Nothing is to be gained by adopting text-books printed in America or Europe, thus necessarily unrelated to Chinese conditions. Above all, as regards the organisa-

tion of professional training, it is essential to try to solve the different problems along exclusively Chinese lines, independently of the solutions found abroad.

Certain important Chinese secondary schools have, incidentally, already achieved most interesting results in this domain. Cash desks like those in banks and shops have been established in the schools as the result of a campaign with the slogan "We emphasise doing," so that in playing the students may acquire the practice of living. After the second year of the Senior High School course the students visit the big commercial organisations and during the third year some of them are detailed off to work for a period in business firms. Obviously, with such an up-to-date training the graduates have no difficulty in finding "good jobs." This is a practice we cannot but recommend, but it is not necessarily suitable for the ordinary secondary schools. It is even more easy to apply in schools exclusively engaged in training boys for definite professions.

In any case we should not as a general rule be in favour of making the primary aim of professional training the acquisition of a matriculation certificate enabling the holder to enter a university, for the effect would be to render professional training courses too like those of the ordinary secondary schools. It goes without saying that really gifted boys who have graduated from the Professional Schools should be admitted to the Higher Technical Schools, but in principle professional training should follow the elementary school and prepare the students not for the study of theory in the Higher Schools but for real life. A great many new arrangements have been made along these lines in China and they promise to give excellent results. The efforts of the National Association of Vocational Education are particularly remarkable. In this connection, the training given at Shanghai, for instance, seemed to us quite perfect. We were particularly struck by the fact that when it was a question of, say, the professional training of blacksmiths and iron-workers, the students were not sent into laboratories and workshops installed with the most up-to-date equipment, for the very good reason that they will never have such places at their disposal in daily life; on the contrary the technique of their future trade was taught them with the aid of the tools currently employed in the country.

We were not, therefore surprised to learn that young men leaving these schools very quickly found paying work, whereas the graduates of Higher Technical Schools who had received a theoretical training found it difficult to get employment in the present economic conditions of China. Another advantage of the schools in question, practical in type and following on from the Primary Schools, was that they are cheap. A school of the kind that we visited, consisting of 991 students, 26 of which were girls, and a staff of 61 teachers and other employees, was self-supporting on an annual budget of $ Mex. 91,000 plus a subsidy amounting to about 10 per cent of that sum. This suggests that the students pay high fees, and it would be most desirable from the social point of view if such schools for the professional training of manual workers gave their course as far as possible free of charge. Besides, it is certain that public money thus employed would bring in better results to the country than the sums spent by the State on the ordinary Secondary Schools.

In Secondary Education the role played by the Vocational Schools is a minor one owing to the fact that out of the 300,000 secondary-school students only between 22,000 and 23,000 attend them. The better-class Technical Schools are always extremely expensive; the Vocational Schools, Laboratories and Workshops already existing should therefore be utilised as economically as possible. To our great surprise, however, we found that in many schools of this kind there were more places available than students to fill them, quite apart from the fact that a more efficient use of space and equipment, as well as of the teaching staff, would enable the number of places available to be increased. When we were asked why this was so, we were told in an agricultural school that only 50 of 600 applicants had passed the entrance examination. This question of the examination is particularly delicate in the case of practical training, and we should suggest that it be thoroughly studied in order to find out whether these entrance examinations are not perhaps too severe or even whether they are not wholly unnecessary.

Between the Higher Technical Schools (Type 1) and the Professional Secondary Schools (Types 3 and 4) there is an intermediate stage, consisting of schools such as the Provincial Agricultural School at Soochow, which, in three

years, and after a two years' preparatory course, gives its pupils, who join it from the elementary schools, a training which it is claimed gives better results from the point of view of the end aimed at (not from that of the number of years) than that given by secondary schools (Type 2). This school has three sections, agricultural, sericultural and horticultural. The pupils go straight into work when they leave the school. Large areas of ground for experimental purposes are attached to the establishment. Such institutions, which also exist elsewhere, are indispensable to an agricultural country such as China. Besides, we were able to verify the fact that excellent schools have been established for agronomical studies and more particularly for sericulture. In connection with the silk industry, factory schools instituted in some industrial centres have shown great promise (Type 5). Some Missions have organised on a purely practical basis advanced courses for apprentices. Nevertheless, the fact must be faced that these are only beginnings and that what is most striking in the present state of professional training in China is the lack of special half-day technical schools where boys might, while going on with their professional activities, perfect themselves in their special subjects and in their general education. Schools or courses of this kind would answer the needs of the great majority of young men obliged to earn their living as soon as they leave the elementary schools. China provides in some degree for the requirements of this class of workers by means of the Adult Education Scheme (Type 6), of which we shall speak in pp. 188 *et sqq*. A type of school enabling men to carry on their work and at the same time take general and special courses to improve their minds is new in the history of education; yet they are multiplying rapidly in many countries, not only in towns but also in the countryside; in some countries they have even become compulsory. We are of the opinion that in a country such as China the development of a system of half-day schools is a matter of essential importance, not only for industrial workers, but also, perhaps even above all, for the farmers. The already existing professional schools, and still more the Higher Technical Schools, should serve as centres of organisation; it would, of course, still have to be decided whether in that case it would be advisable to use also the Adult Courses

as such centres, adding to their number if necessary, for they have already given very satisfactory results.

The question of professional training is so important that we should like to add to this description of existing conditions some theoretical considerations which will, we feel, usefully complete the practical proposals made concerning the actual improvements required. We shall do this in the form of brief statements dealing with the aim, organisation and methods of professional training, as well as with the teaching staff. Reference should also be made to the general considerations set out in the first part of this report and to the various chapters of the second part (particularly chapter ii, pp. 98–128).

(*a*) Besides receiving from the school his general culture, every child should at the same time be initiated into a profession suitable to his aptitudes. There should be several stages for each profession or group of professions, each stage being accessible by a process of selection. The higher the stage, the longer should be the period of general education and the later should come specialisation—but without the specialisation in the lower stages making it impossible to rejoin the higher stages subsequently.

(*b*) In principle, three stages should be distinguished. The first begins on leaving the elementary school (which may itself, especially in the case of farming, be in touch with the general activities going on around and give the child his first initiation into the profession). The professional schools of the first stage may be either professional schools properly so-called or half-time apprenticeship schools. These schools of the first stage concern the largest number of children, and should be widely developed. They should be followed by after-school training up to the age of 18, directed primarily towards general culture. The schools of the second stage consist either of six years' training with secondary preparatory courses for three years or of three years' training after three years' secondary education or the three years' professional training of the first stage. The schools of the third stage or Higher Technical Schools are on the same level as the Universities and may be incorporated in them. The training given lasts in principle for four years after the secondary school of six years or the professional school of the second stage.

(*c*) At every stage, training should be given along the same lines, the differences being determined merely by the age of the pupils and their degree of intellectual and physical development. The active method should predominate over the receptive or passive (*cf.* p. 36). A large part of the time (more than 50 per cent) should be devoted to practical work in the workshop, laboratory or field of actual experience. The passage from facts to ideas should be effected with a view to forming the mind of the pupil and giving him those general notions which will enable him subsequently to solve the new problems constantly raised by life and his profession and to adapt himself easily to new methods of work.

For the worker at every stage, professional training should give not so much details of to-day's technique as the capacity of understanding or creating the technique of to-morrow—by means of a sufficiently comprehensive general education supplying the individual with the general ideas by which he will live for the whole duration of his professional activities.

Descriptions of methods of work or machinery should be functional rather than organic. Industrial science should be taught—not industry.

The development at every stage of an after-school training designed to keep the worker in touch with scientific progress through finishing centres or professional associations (scientific, technical societies, etc.) is most necessary.

(*d*) The teaching staff (general culture) should have the same standard of education in all schools of the same stage. The technical staff should remain in contact with those; practicing the profession or themselves practice it during a part of their time. They should also be trained as teachers; for that purpose we recommend the creation of centres of training in pedagogy for the technical teachers.

It would be most desirable to group all the professional training establishments under the authority of a single national educational body working in liaison with the Ministries concerned for the purpose of developing industry and of proportioning the preparation of future trained workers to its requirements.

These general considerations taken in conjunction with what we have already said in this connection in the various chapters of the present report clearly express our conception

of the development of vocational and technical training in China. It is gratifying to note that the high educational authorities in China are working in the same direction. The instructions prepared by the Chinese Minister of Education for submission to a conference planned to take place last year but postponed to a later date which was to deal especially with the problems of vocational training may be taken as evidence of this. We close this chapter by reproducing this document, but not without stating our full agreement with the ideas expressed therein.

"MINISTRY OF EDUCATION

"REPUBLIC OF CHINA

"THE IMPORTANT POINTS OF 'STANDARDS FOR VOCATIONAL EDUCATION'

"1. To establish vocational schools of different grades, local educational authorities should herewith meet social needs, and aim at the potential opportunity of earning a living of the student.

"2. Before the establishment of vocational schools, local educational authorities should make explicit survey into social conditions. With the results thereby obtained as reference, the said authorities then determine what should be the nature of the vocational school and its courses.

"3. In addition, the authorities should beforehand have consultation with local industrial organs, or make the school under the joint auspices of the authorities and the industrial organs. Concrete plans for the vocational school must be first formulated; their results in future anticipated.

"4. In expanding the vocational school, local educational authorities should lay stress upon practical effect, quality rather than quantity.

"5. Vocational schools of different grades should be equipped with appropriate instrumental materials and grounds for practice (or experiment). The initial expense of the school should be sufficient to realize this purpose.

"6. Grounds for practice (experiment) in vocational schools should be spacious enough to accommodate the whole body of the students in the period of practice.

"7. The running fund of vocational schools should be yearly increased.

"8. Teachers of vocational schools should have ample experience in the special line (knowledge ranks in the second place). If such teacher cannot be found, technician and common teacher may give joint instruction instead.

"9. Teachers of vocational schools should promote co-operation with the student.

"10. As to the teaching method in vocational schools, lesson-plan should be formulated with the aim of teaching prefixed.

"11. In the enrolment of vocational schools, more chances should be offered to the boys and girls from the poor family, who have the will to serve in commercial, agricultural, industrial circles after their graduation.

"12. Limitation on their age and qualification in the enrolment should be less strict than that which is applied in general in the institutions other than vocational schools.

"13. Total year of schooling of vocational school should be very much elastic. The minimum requirement for graduation is that the student must have acquired the ability of rendering service for the society in capacity of any vocation.

"14. For the good of the student of vocational schools, efforts should be directed to train their ability of self-development.

"15. For the discipline of the student of vocational schools, physical-, vocational- and character-training are to be equally emphasized. Special attention should be paid to the third one.

"16. The quality of the product made by the student of vocational schools in the period of practice should be compared with that of the commercial product in society.

"17. The subjects of vocational schools are of three kinds, namely, general subjects, vocational subjects, and subjects for practice. Time required for practice should occupy half as much of the whole time of the curriculum.

"18. The administrator of vocational schools should often associate with commercial, industrial, agricultural circles.

"19. The records of vocational schools will be measured by the number of their graduates who got their chance to earn a living."

CHAPTER III

UNIVERSITY EDUCATION

1. General

THE summit of the Chinese educational system consists of the universities. As we have already explained in a previous chapter, we think that preparation for an academic career, which can necessarily be achieved by only a minority of the pupils receiving secondary education, plays an excessive, and, in some respects, an injurious, part in determining the curriculum and methods of the secondary schools. The fact remains, however, that the influence of the universities both is, and ought to be, profound. The advancement of knowledge, the training of those who will later hold positions of leadership in the world of science and public affairs, the maintenance of the cultural standards of the nation as a whole are, in a peculiar sense, their responsibility. In the present chapter we begin by summarising certain salient facts as to the number and organisation of Chinese universities, next discuss the question whether any changes are desirable in the present system, and conclude by stating the reforms which we should desire to see introduced. The subject is one of considerable complexity, and it will be understood, of course, that there are necessarily exceptions to any general statement. Our object has been, not to appraise the merits of particular institutions, but to indicate the character of the problems to be solved, and the measures which should, in our judgment, be adopted for their solution.

Institutions recognised by the State as universities are, in the matter of finance and administration, of three main kinds: (i) National Universities, (ii) Provincial Universities, (iii) Registered Private Universities. The universities in the two first categories are supported by the National Government and Provincial Governments respectively, in each case to the extent of more than 90 per cent of the total expenditure; their Presidents are appointed by a public authority, whether the National Government or the Governments of the provinces; they are subject to public control, must

present annual reports to the Ministry of Education, submit estimates of their next year's expenditure, and be open to inspection. Three Registered Private Universities received grants of public money in the year 1930–31, but more than half the revenue of this group of universities is derived from students' fees, and approximately a quarter from endowments.[1] The conditions to be fulfilled by a university before recognition is accorded are laid down by the law of July 1929, supplemented by regulations issued in the following month by the Ministry of Education. It must consist of at least three colleges, of which one must be a college of science, agriculture, engineering or medicine. Government universities can be established only subject to the approval of the Ministry of Education. Private Universities desirous of being recognised must register with the Ministry and comply with its requirements. The most important of the latter are that the principal administrators shall be Chinese, that there shall be a majority of Chinese on the governing body, that the curriculum shall conform

[1] The following figures of the sources of university income in the year 1929–30 have been supplied us by the Ministry of Education:—

(*In Mexican Dollars*)

	National Universities	Provincial Universities	Registered Private Universities
Total income	12,390,327	4,029,942	7,439,097
Income from National Government	11,519,059	—	—
Percentage	92·9	—	—
Income from Provincial Government	—	3,699,000	—
Percentage	—	91·7	—
Income from Students' Fees	24,370	287,191	1,831,808
Percentage	3·4	7·7	58·0
Income from Land ..	—	—	4,321,178
Percentage	—	—	24·6
Income from other sources	446,905	43,507	—
Percentage	3·6	1·0	17·2

It is stated that in the year in question the *per capita* expenditure in Government universities was $824·70, of which the Government contributed $797·37, and in Private Universities $902·34, of which the Government contributed $25·35.

to the rules laid down by the Government, that there shall be no compulsory religious instruction, and that certain minimum standards, designed to secure financial stability and educational efficiency, shall be observed.

The university system, like other parts of the educational system of China, is still in process of growth. The number of institutions appearing in each of these categories varies from year to year, as the result both of the opening of new universities and of the merging of those which were previously separate. According to figures for September 1931, supplied us by the Ministry of Education, the universities in existence at that time numbered in all 59, including 33,847 students; of which 15, with 11,572 students, were National, 17, with 5,910 students, Provincial, and 27, with 16,365 students, Private Registered Universities.[1] The number of students was almost equally divided, therefore, between the public and the private establishments, 34 per cent of them being found in the National Universities,

[1] The details, as given by the Ministry's figures (September 1931), are as follows:—

	Men	Women	Total
15 National Universities—			
Students	10,188	1,384	11,592
Teachers	2,816	131	2,947
17 Provincial Universities—			
Students	5,512	398	5,910
Teachers	1,206	25	1,231
27 Registered Private Universities—			
Students	14,647	1,718	16,365
Teachers	1,861	173	2,034
59 Recognised Universities—			
Students	30,347	3,500	33,847

Of this total of 33,847 students, 5,170 are taking less than a Full Degree Course.

These figures do not include the number of university students (*a*) taking Shorter Courses, (*b*) in Preparatory Departments. In the year 1930–31 they numbered 8,635. Further, there are a certain number of unregistered Private Universities. Exact figures as to them are not available, but they are stated to number 16, with 6,000 to 7,000 students. Ten such universities have already been closed, and it is stated that all are to be closed before the end of 1932.

17 per cent on the Provincial and 48 per cent in the Private Registered. The preponderance of men students, who formed over 89 per cent of the total student body, deserves also to be noticed. The university education of women has made considerable progress in China in the course of the last generation, but it is still in its infancy.

The institutions covered by these figures vary considerably in size. If the Private Universities be for the moment excluded, and the National and Provincial Universities alone be considered, there were at one end of the scale half a dozen universities with more than 1,000 students and teaching staffs numbering from 184 to 658; at the other end, nine universities with less than 250 students, and teaching staffs numbering from 15 to 108. The difference in the range of intellectual interests embraced is equally noticeable. Chinese universities are divided into "Colleges"[1] based on certain subjects or groups of subjects, for example, the Liberal Arts, Science, Law, or Agriculture, and these colleges, in turn, are divided for purposes of organisation and teaching into departments. Both colleges and departments have increased considerably in the last three years; but, while there are some universities with five, six or seven colleges, there are others which possess only the three required in order to be recognised by the State, and some which possess less.[2] The cost of providing a university education also varies widely from institution to institution. While the average expenditure per student of all universities (public and private) was in 1929–30, 692.99 Mexican dollars, it ranged, in the case of National Universities from 425.99 dollars to 1,155.28 dollars, and in the case of Provincial Universities, from 198.53 dollars to 1,033.77 dollars.

In spite of such differences, there is a general resemblance between the educational methods and conditions of life in most Chinese universities, which tend to give the students trained in them a common stamp. On the intellectual side the decisive forces are, perhaps, six: the somewhat scanty

[1] The nearest Western equivalent is the word "school" (e.g. "School of History," "School of Business Administration," "École des Sciences politiques").

[2] There were 136 colleges and 418 departments in 1928, and 151 colleges and 533 departments in 1930. The rule as to the necessity of a university containing not less than three colleges has not yet been

preparations for university studies given by some secondary schools; the reliance, both of teachers and of students, on the lecture as the principal instrument—sometimes, it would seem, almost the only instrument—of education; the pressure, partly as a result of that fact, upon the students' time; the method of organising work known as the credit-system; the influence of foreign educational examples, the effect of studying certain important subjects largely through the medium of a foreign language, with materials and illustrations drawn principally from countries other than China; and the predominance in the curriculum of most universities of the subjects grouped under Law and the Liberal Arts. The social aspects of Chinese universities are equally significant. The most important of them are the absence of close contact of an informal kind between teachers and students, the existence of a residential system, under which most students live in dormitories forming part of the university building, the prevalence of the desire to study abroad and the large part played by returned students in Chinese academic life; and the place which past tradition and recent history have assigned to the student as the spokesman of public opinion.

Internal educational arrangements naturally vary from one institution to another, but the characteristic features of the system can be briefly summarised. Entrance takes place as the result of an examination held separately by each

universally enforced, an interval being given to enable arrangements for complying with it to be made. The number of colleges existing in 1930 in 15 National, 17 Provincial, and 24 Private Registered Universities is given by the Ministry as follows:—

	National Universities	Provincial Universities	Private Registered Universities
8 Constituent colleges ..	1	—	—
7 Constituent colleges .	1	—	3
6 Constituent colleges ..	2	1	3
5 Constituent colleges ..	1	4	4
4 Constituent colleges ..	—	7	9
3 Constituent colleges ..	7	1	4
2 Constituent colleges ..	1	1	4
1 Constituent college ..	2	4	4

university, and varying in character with the college which the student proposes to enter. Since in most cases the applicants for admission considerably outnumber those who can be admitted, competition is keen. It is the practice for many candidates, we are informed, to sit for two or more universities, and, if successful, to select that which they prefer. Till recently, it was common for universities to require students, after four years at the secondary school, to take on entering the university a 2-year preparatory course, with much the same curriculum as the senior secondary school. It was held, however, that this arrangement was unfavourable to the development of good senior secondary schools, and it was accordingly laid down by the Ministry in 1930 that preparatory courses should be abolished by June 30, 1932, with the result that, though such courses still continue at certain universities, no new students were admitted to them in 1930 and 1931, and that their number, though still large, has considerably diminished.[1] The university course lasts, except in the case of medicine, for four years, and the year is divided into two semesters. Students attend the university for slightly over eight months, their work running from September 1st to the latter part of January, and from February 10th to the end of June.

The principle upon which university work is commonly arranged is that students are required to take certain fundamental subjects as the beginning of their university career, and that the proportion of time given to intensive study in a more limited field increases as it proceeds. Thus, in the first year fall lectures which must be attended by all students in the university—in particular, the Chinese language, a foreign language (usually English) and the principles of the Kuomintang and Civics—together with certain courses which must be taken by all students in a given college. In the second year, Chinese and the Principles of the Kuomintang continue to be taken, together with English, or some other language, by students following the Arts course, but the remainder of the work is that necessary for all students in a given college, together with some designed specially for those in a particular department of that college. The third year is devoted to departmental requirements,

[1] The number of university students in Preparatory Courses in the year 1930–31 is stated to have been 8,635.

and these continue to occupy the fourth year, but are then supplemented by a larger proportion of elective courses. The unit of work is the credit—one hour's class work per week during a semester, plus two hours' preparation. There are normally two examinations per semester, or sixteen during the 4-year course, varying in character and stringency with the department concerned. In order to graduate a student must obtain at least 132 credits, which means that he must obtain 60 per cent or over in each of these examinations. A certain proportion of the students are eliminated before they reach the final year; but, once having done so, it is only in rare cases, we are informed, that they fail to graduate. Only bachelor's degrees are at present awarded by Chinese universities, and students desirous of obtaining higher degrees must seek them abroad.

In the last twenty years university education in China has advanced with extraordinary rapidity. The most superficial observer must be struck by the influence which it has exercised upon the life and thought of important strata of the population. Distinguished scholars have received part, or all, of their higher education in Chinese universities, and, in their turn, have taught in them; the personnel of the Civil Service, central and local, and of teachers in secondary schools—both key professions—is largely recruited from them. Their contribution to the advancement of knowledge has, in certain fields of study, been of genuine significance. It is not an exaggeration to say that modern China is, to a large and increasing extent, the creation of her universities.

These facts are fundamental. No judgment can be other than misleading which fails to do justice to the impressive progress made by university education in China, and to the influence which it exercises on the life of the nation. If, nevertheless, we call attention in the following pages to certain grave weaknesses in the present system, the reason is not that we underestimate the importance of the services which the universities are rendering. It is, on the contrary, that we are confident, provided that the appropriate measures are taken, that the value of these services can be greatly increased. Many of our criticisms, we may add, have repeatedly been made by Chinese educationalists.

Some of our proposals have been partially anticipated by action on the part of the Ministry of Education.

A university is at once a centre of intellectual activity and an administrative organisation. In order to perform its functions of research and education, it requires both a clear conception of the end to be attained and an adequate supply of the indispensable means, including a skilled staff of scholars and teachers, efficient officers, suitable equipment, and sufficient financial resources. These requirements are intimately connected, but, for purposes of convenience, they may be considered separately. Does the university system of China suffer from defects of organisation, and in what way can they be corrected? Are there educational weaknesses in Chinese universities which are capable of removal, and how can they be removed?

2. Criticism of Organisation

The first problem is fundamental, but it appears to have received hitherto but little attention. It is a question, in the first place, of the university *system*, not of the merits or defects of particular universities. It was inevitable, no doubt, in a period of swift educational development, that individual initiative should play a larger part than system and design. China, as was remarked to us, has experienced a "university fever," and for a time universities were promoted, like joint-stock companies in an economic boom, with little regard to the demand to be met or the best method of meeting it. Growth outran organisation; institutions of precarious stability were brought into existence; a heavy strain was put both on the financial resources available for higher education and on the supply of teachers with the necessary qualifications.

That movement passed its peak some years ago, but many of its effects, both good and evil, are still felt to-day. In order that the former may be preserved and the latter eliminated, what is needed now is not expansion but consolidation. If China is to receive from her universities the full benefits to be obtained from them, it is not sufficient that individual institutions among them should be doing

valuable work. It is necessary that the structure as a whole should be planned in the manner best calculated to meet the real needs of the nation, and that the different elements composing it, instead of pursuing each its own course as an isolated unit, should act together, as part of a coherent scheme, with a common objective.[1]

It cannot be said that, as things are to-day, that reasonable ideal is adequately realised. The belief in—almost the passion for—higher education, which has caused more than fifty universities to be established in the course of less than a quarter of a century, deserves in itself the highest admiration. But the system thus swiftly created necessarily suffers, in spite of its genuine merits, from the defects of its qualities. The haphazard geographical distribution of Chinese universities; the multiplicity of separate institutions, doing almost identical work, in the same area, and the absence of a rational division of labour between them; the over-emphasis on certain branches of knowledge to the neglect of others at least equally important; the unsatisfactory position of the teaching staffs, have been the subject of repeated comment by Chinese educationalists.

(*a*) The facts, so far as we have been able to ascertain them, confirm their criticisms. In the year 1930–31, out of 15 National Universities, 11 were found in three cities; three other cities contained 9 out of the 17 Provincial Universities; while three cities again, in all of which there are National Universities, possessed 19 out of 27 Registered Private Universities. In the immediate neighbourhood of Peiping there were 4 National and 8 Registered Private Universities. In Shanghai there were 4 of the former and 9 of the latter. In Tientsin there were 1 National University, 4 Provincial Universities and 1 Registered Private University. In 1930, out of 33,847 University students in China, 20,463 or 60 per cent were to be found in two cities alone, Peiping and Shanghai. Six cities contained 27,506 students, or over four-fifths of the total number.

It is true, of course, that the duplication of work in the areas concerned is not so great as these figures might, at first sight, suggest. Certain of the institutions in question, for example, though described as universities, are, in reality, in the nature of specialised colleges, devoted to particular

[1] See next page.

GEOGRAPHICAL DISTRIBUTION OF UNIVERSITIES, 1930–31

City	Province	National	Students	Teachers	Provincial	Students	Teachers	Private Registered	Students	Teachers	Total Students	Total Teachers
Peiping	Hopei	4	4,601	1,460	—	—	—	8	6,029	653	10,630	2,113
Nanking	Kiangsu	1	1,663	379	—	—	—	2	549	160	2,282	539
Shanghai	Kiangsu	4	2,443	541	—	—	—	9	7,380	750	9,833	1,291
Canton	Kwantung	2	1,592	201	—	—	—	1	265	74	1,857	275
Hangchow	Chekiang	1	457	208	—	—	—	1	73	23	530	231
Wuhan		1	401	137	—	—	—	1	371	42	772	179
Tsingtao		1	109	19	—	—	—	—	—	—	109	19
Tientsin	Hopei	1	306	32	4	588	165	1	308	50	1,202	247
Mukden	Manchuria	—	—	—	1	1,274	197	—	—	—	1,274	197
Changsha	Hunan	—	—	—	1	228	104	—	—	—	228	104
Taiyuan	Shansi	—	—	—	2	959	112	—	—	—	959	112
Kaifeng	Honan	—	—	—	1	456	85	—	—	—	456	85
Anchang	Anhwei	—	—	—	1	402	75	—	—	—	402	75
Chengtu	Szechwan	—	—	—	3	1,630	385	—	—	—	1,630	385
Kirin	Kirin	—	—	—	1	167	38	—	—	—	167	38
Tungli	Tsinan	—	—	—	1	250	60	—	—	—	250	60
Kanchow	Kansu	—	—	—	1	108	45	—	—	—	108	45
Wusih	Kiangsu	—	—	—	1	158	25	—	—	—	158	25
Amoy	Amoy	—	—	—	—	—	—	1	219	59	219	59
Soochow	Soochow	—	—	—	—	—	—	1	735	55	735	55
Nantung	Nantung	—	—	—	—	—	—	1	301	42	301	42
Foochow	Foochow	—	—	—	—	—	—	1	125	26	125	26

subjects: for example, law, engineering, medicine or the preparation for their profession of prospective teachers. It is true, again, that different universities have distinctive traditions which it may be desirable to preserve. When due allowance, however, has been made for such considerations, the concentration of university education in a small number of areas remains surprising. There are few cities in the world, outside China, which contain more than two separate universities, though in some cases, of course, the universities which exist possess several constituent colleges. It is improbable that, if the Ministry of Education were planning *de novo* the university system with a single eye to the educational interests of China as a whole, it would decide that Peiping and Shanghai required between them 8 National Universities, in addition to the 17 Registered Private Universities existing in those cities.

The disadvantages of the multiplicity of separate academic institutions within a small number of cities are somewhat serious; it is difficult to see, indeed, how, until they have been overcome, an effective university system can be created. For one thing, it greatly increases the cost of providing university education. In all countries, and in particular in China, where the need for increased expenditure on the earlier stages of education is urgent, it is important that the resources available for educational development should be carefully husbanded. The proportion which administrative charges form of the expenditure of Chinese universities is high, and the Ministry of Education has rightly called attention to the desirability of reducing it. When, however, as is the case to-day, each of several universities in a single town maintains its own staff of officers and clerks, the aggregate cost is necessarily greater than it would be were administration unified. For another thing, the most effective use of the teaching power available for university education is rendered more difficult by the existence of a number of separate institutions. In China, as in other countries, the supply of teachers with the qualifications required is not unlimited, and it is essential that those who are available should be used to the best advantage. If that result is to be achieved, work must not be needlessly duplicated, and several professors must not be employed on tasks for which, given better organisation, one would be sufficient. As things

are to-day, the staffing of Chinese universities is somewhat lavish; according to figures supplied us by the Ministry, the number of teachers per 100 students in the 4 National Universities of Peiping was 23·7, 23·8, 24·7 and 24·8 respectively, and in those of Shanghai 11·7, 12·6, 17·5 and 18·6,[1] while, in certain departments of knowledge, several courses on identical subjects are being given in different universities within a single city. That situation, with all the waste of effort and money that it involves, is not easily avoided as long as each of several local universities engages its own staff, plans its own work in independence of every other, and establishes a new course of lectures in spite of the fact—sometimes, it is stated, because of the fact—that a similar course is already being given by a neighbouring institution. In the third place, the adoption of a far-sighted policy with regard to the promotion of research, the development of branches of science at present neglected, the improvement in the status of the teaching profession, and the establishment of more intimate relations between teachers and students, would obviously be easier if a smaller number of strong universities took the place, wherever possible, of a large number of weak ones. Free competition has its advantages, but it is not seen at its best in the sphere of academic organisation.

(*b*) The measures which we recommend should be taken to deal with this problem are stated below. It is not only, however, the capricious geographical distribution of universities which requires attention. A feature of Chinese academic life which points equally to the need of a more rational division of labour between different institutions is the excessive conformity of type which at present characterises them, and the concentration on certain branches of intellectual work to the neglect of others. More than one-third of the students are studying Law, including Political Science, and more than one-fifth the Liberal Arts. Just over one-tenth are studying Engineering, and just under one-tenth the Natural Sciences, while Agriculture, the scientific study of which is peculiarly vital to the future of China, accounts for only 3 per cent of the total number.[2]

[1] It must be remembered, of course, that a large percentage of university teachers are part-time workers (see below, pp. 152 *sqq.*).

[2] The following table gives particulars as to the different branches of

There are special reasons, no doubt, for the situation revealed by these figures. On the one hand, equipment for advanced scientific or technological work is expensive, and the character of Chinese economic life causes the openings for men with technical training to be fewer than in countries where large-scale industry is more highly developed. On the other hand, the ambition of most Chinese university students is a career in the public service, central or local, and, failing that, a post as a teacher. Law and political science are regarded as the natural preparation for the former, an Arts course for the latter.

The atrophy of Natural Science and Technology, and the hypertrophy of legal, political and literary studies, are none the less, however, extremely unfortunate, from the point of view both of individual students and of the nation as a whole. Their effect is that some men devote their academic life to law and letters who have little natural capacity for those branches of study; that intelligence which ought to be employed in creating the conditions of a better existence

study pursued by the 28,677 students taking degree courses in 59 universities in the year 1930–1 :—

	National Universities		Provincial Universities		Private Registered Universities		Total	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Liberal Arts	2,367	21·2	1,370	—	2,725	—	6,462	22·5
Law ..	2,736	—	1,355	—	6,431	—	10,522	36·6
Natural Science	1,330	—	503	—	959	—	2,792	9·7
Education ..	852	—	260	—	677	—	1,789	6·1
Agriculture	531	—	123	—	254	—	908	3·1
Engineering	2,149	—	827	—	346	—	3,322	11·5
Commerce	627	—	—	—	1,176	—	1,803	6·2
Medicine ..	537	—	125	—	417	—	1,079	3·7
Total ..	11,129	—	4,568	—	12,985	—	28,677	—

It must be remembered, of course, that, apart from the universities, there are 28 higher technical colleges, of which two are maintained by the National Government.

for the mass of the population is too often wasted in a demoralising scramble for access to careers already overcrowded; and that the world of affairs, both public and private, is deprived of the stimulus which it ought to derive from the influence of education.

It is not the case, as is sometimes alleged, that the backwardness of Chinese economic development is a reason for neglecting scientific and technological studies: on the contrary, it is a reason for redoubling the attention devoted to them. In China, as elsewhere, men of character and ability, reinforced by a sound educational preparation, can make openings for themselves and, in time, for others; and industry and business, however scanty the opportunities which at present they offer, are less congested with talent in search of employment than are politics and teaching. What China requires to-day, both in Government and business, is trained practical intelligence, which takes a realistic view of the nation's difficulties and grapples with them in the spirit of the scientist seeking the solution of a complex problem, or the engineer who mobilises men and materials to dam a river. What, together with much that is admirable, she is offered by her universities is a somewhat excessive number of men with the intellectual equipment and outlook of the journalist or rhetorician. Such men are not easily absorbed, nor are they always serviceable to the institutions which absorb them.

(*c*) The third aspect of the organisation of Chinese universities which demands attention is, in a sense, more important than any other. It is that of the position of the teachers employed by them. The total number of such teachers in all universities—National, Provincial and Registered Private together—was, in 1930–31, 5,894,[1] of whom 603, or 10 per cent, were also engaged in administrative work. What these 5,000 odd professors, lecturers and assistants are, that, in the long run, the universities will be. The question of their economic circumstances and professional status—of their terms of appointment and varying ranks in the educational hierarchy, of the conditions under which they work and their opportunities for research, of

[1] This figure is in excess of the total number of individual teachers, since some of those employed by more than one institution (see below) are counted twice.

their relations with the bodies who employ them and the students whom they teach—is among the most fundamental issues of academic policy. It has been a constant preoccupation throughout the course of our enquiry.

It is a question which cannot be considered without some measure of anxiety. The expansion of university education in China has had, as its necessary consequence, a corresponding increase in the number of university teachers. The 229 at work in 1912 had grown to 420 by 1916, and to-day there are more than ten times that figure. They have included, needless to say, individuals of great distinction; but the rapid increase in numbers has created problems which still await solution. It cannot be said that the profession as a whole is so organised as to enable the wealth of ability in it to be employed to the best advantage.

A rational classification of the different grades of teachers; a satisfactory and clearly defined professional status; a reasonable measure of economic security, seem—in the case, at least, of National and Provincial institutions—to be too often lacking. Of the total personnel, approximately 41 per cent are professors or associate professors; 44 per cent lecturers; and 15 per cent assistants. The significance of the distinction between the professoriate and other grades of university teachers, however, is not always obvious; it appears to be the exception for professors to occupy definite chairs; and, apart from its honorific associations and the higher salary which it carries, the precise meaning of the term as used in China is not always easy to determine. Neither official regulations nor general custom prescribe the conditions on which the staffs of National and Provincial Universities are appointed and employed, and the practice followed in these matters varies from one institution to another. As a general rule, professors are appointed by the president of each university at his own discretion, and lecturers and assistants by the dean of the department concerned, sometimes after consultation with the president, sometimes without it. There is much economic insecurity; contracts, in the public universities, are normally for one year, and rarely exceed two; salaries in these institutions, which depend for nine-tenths of their income on grants of public money, are frequently several months in arrears; allegations of improper political influence in the matter of

appointments and dismissals appear in some cases to be not wholly unfounded.

In such circumstances there is a strong inducement for teachers to safeguard themselves by securing that they have more strings than one to their bow, and teaching simultaneously in several different universities—an arrangement made practicable by the existence of several universities in a single city. Of the 5,895 university teachers, not only are 608, or 10 per cent, employed in administrative work in addition to teaching, but 2,066, or 35 per cent, have some work—usually teaching in other universities—outside the institution which is their principal employer, while only 3,225, or 54 per cent, hold full-time appointments. Certain universities have limited to four or six hours a week the time which a professor may spend in paid work outside them; but no such rule appears to have been generally introduced. It would be unfair to blame individual teachers for the evils to which this academic pluralism, when carried to excess, gives rise. They are often themselves aware of them, and, in the majority of cases, are the victims of circumstances beyond their control, in particular insecurity of tenure and irregularity in the payment of salaries. It is not open to question, however, that, as was repeatedly emphasised to us, the present practice is gravely prejudicial to the quality of university education. Examples have been given of professors being employed in as many as four universities, and actually teaching, in all, for over thirty-five hours a week. It is obvious that teachers employed under these conditions cannot have leisure either to advance knowledge, or to keep abreast with new work in their subjects, or to have personal contact with the students attending their classes and lectures.

The remuneration received by professors in public universities is a further point which requires attention. It is extremely unequal, and there appears to be no recognised scale, the steps in which are proportioned to different degrees of distinction and responsibility. Their salaries, as a rule, compare favourably with those of other branches of the teaching profession; and, when account is taken of the scale of earnings in China, are relatively high. Some, perhaps, are underpaid; others are probably overpaid. It is obviously essential that teachers should be adequately

remunerated and should possess a reasonable measure of economic security; but at present, principally, no doubt, owing to the conditions of uncertainty in which they work, the attitude of some of them is stated by experienced observers to be unpleasantly commercial.[1] If that temper is prevalent, no institution can prosper.

What is required is both that the economic position of university staffs should be stabilised, and that a more exacting conception of their obligations should be generally accepted by them. It is necessary, in short, that they should become an organised profession, paid with regularity, enjoying a clearly defined status, and animated by a spirit of corporate pride which will lead them to check practices infringing the standards of their calling as derogatory to the whole body of teachers. Proposals as to the practical steps by which these results may be achieved are made below.

(*d*) The fourth aspect of university organisation which requires consideration is intimately connected with that just discussed. It is to be found in the relations, particularly the financial relations, between National and Provincial Universities and the public authorities. These authorities have played a large part in the development of university

[1] "In both Government and private institutions," stated recently the Chinese president of a university, "we find commercialised professors—professors who not only make a living by their profession, but who make a profit out of their teaching. They come to the class-room of the college, run off their record, and, after the hour is over, go to another and repeat the same performance. The effort they put into teaching is for the sake of money rather than for education. Teachers and students are entirely separated. The professor is not interested in the students or their work, but rather in the number of hours' teaching for which he can draw salary. The blame for this condition, however, cannot be thrown entirely upon these professors. Certain peculiar conditions have forced or encouraged them in this condition of commercialism. The uncertainty in payment of salaries, which are often in arrears for several months, upsets their living conditions. To play safe, they are compelled to take several jobs, so that, when one institution fails they have another to fall back upon. Another important reason for this commercialisation of teaching is the rivalry between institutions in obtaining teachers, particularly returned students with high-sounding degrees. These teachers make good advertising material for those colleges which want to attract students. This rivalry amongst institutions encourages many professors for money or friendship to accept more positions than they can handle. Some popular professors are known to carry more than 30 hours' work a week in universities in different cities."

education in China. As has already been pointed out, National and Provincial Universities derive over nine-tenths of their income from funds supplied, respectively, by the National Government and the provinces. The presidents of both classes of institution are appointed by the National Government, on the nomination, in the case of the first, of the Ministry of Education, and, in that of the second, of the Provincial Government. The action of Government, therefore, whether central or local, has an immediate and important effect on the welfare of the universities. It may, if capricious or ill-judged, lower their efficiency. Wisely directed, it can be used as a lever to raise it.

It would have been impossible for university education to reach its present dimensions without generous assistance on the part both of the National Government and of the provinces. The wisdom shown in recognising that its development is among the vital interests of even a relatively poor nation reflects the highest credit on all concerned. It does not seem to us, however, that the manner in which such assistance is given to-day is always that most likely to contribute to the end in view. It must be noted, in the first place, that the public funds placed at the disposal of universities, though substantial in amount, are liable to be somewhat irregularly paid. The causes of such irregularity are outside our purview, but we feel bound to call attention to its injurious effect upon the character of the universities. Plans cannot be laid in advance, since it is uncertain whether means will be forthcoming to carry them out; the salaries of the staff fall into arrears; the deplorable practice of pluralism among teachers cannot be checked; the whole tone of the personnel affected is demoralised, and their demoralisation reacts, with disastrous effects, on the *moral* of the students. The most desirable course would be that grants from the State to universities should be fixed for a period of not less than three years at a time, so that it may be possible for the latter to know what their financial position will be, and to plan their policy in accordance with it. It may well be the case that, in the present circumstances of China, such a degree of stability in the provision made for university education is unattainable; but it is essential, at any rate, that grants of money once promised shall be punctually paid. It would be better, in our view,

that a smaller sum should be paid with regularity than that, as at present, universities should be uncertain from month to month whether the funds on which they have been given reason to count will, in fact, be placed at their disposal.

The principles, in the second place, upon which money is allotted to different institutions raise issues of equal importance which should be more easily handled. We have been unable to discover, indeed, that any definite principles are at present recognised or applied. In the case of National Universities, the proportion assigned to each appears to depend partly on the practice of previous years, partly on the pressure exercised by the heads of the different universities, who sometimes, again, must have recourse to special efforts in order to ensure that the sums promised are paid when due. Such an absence of system is conducive neither to economy nor to efficiency. The National and Provincial Governments spend annually a large sum—the former in 1929–30 over 11,500,000 Mexican dollars, and the latter 3,600,000 Mexican dollars on public universities. They have both the right and the duty to insist that value shall be received for the money paid.

If that object is to be achieved, they must have due regard, in allotting their grants, not only to the needs of the different institutions at present receiving public money, but both to their individual efficiency and, equally, to their place in the whole system of university education. They must satisfy themselves, that is to say, that the universities concerned are well managed and educationally sound; that there is no unnecessary overlapping between them; that the types of higher education which the nation needs most are not thrust into the background by others which, though good in themselves, are of less urgent importance; and that some areas do not suffer from an absence of facilities for higher education, while others are injured by an excessive supply of them. The grants paid by public bodies to universities should be regarded, in short, not as a right which a university is entitled to enjoy in perpetuity because it has formerly enjoyed it, but as conditional upon the proper performance of its functions in accordance with the general educational scheme laid down by the Ministry of Education. If that ideal is to be realised, it is essential that the funds available for Higher Education should be

allotted to different universities on a plan carefully prepared by a competent body, and periodically revised as the circumstances of different institutions change and fuller experience reveals new possibilities of improving the organisation of university education. The methods which we suggest should be employed to attain that object are set out in a subsequent passage of the present chapter.

3. Criticism of Educational Standards and Methods

(*a*) The first educational difficulty encountered by Chinese universities is simple. It is the inadequate preparation of many of those entering them. Owing to the poor quality of a considerable number of senior secondary schools, a considerable proportion of the students applying for admission to universities are not fully qualified to profit by a university education. The university entrance examinations are designed to eliminate the weaker candidates. Since, however, no adequate machinery exists for maintaining a common standard between the entrance examinations of different universities, those rejected by one university can enter another upon less exacting terms, and, if rejected by a second, can still find refuge in a third. The evil is aggravated by the fact that, among the universities, there are some whose continuance depends, to a greater or less degree, upon their enrolling the largest possible number of students. Such institutions are obviously under a strong temptation not to scrutinise too closely the qualifications of applicants for admission.

The results of this situation are extremely grave. They depress the intellectual standards of universities and degrade the whole conception of what a university education should mean. Quality tends to be sacrified to mass production. Not only in the preparatory departments, with their 8,000 odd students, which are avowedly designed to make good the deficiencies of the earlier stages of education, but even in the degree courses themselves, the methods and outlook of the secondary schools are too often perpetuated at college. The work of the universities, both in teaching and research, has to be adapted to the level attainable by students unprepared for serious intellectual effort and incapable of maintaining it. To the students themselves, the undue ease

of admission which exists to-day is not, as is sometimes suggested, a benefit, but an injury. It arouses expectations which cannot later be fulfilled, and tempts into the paths of academic education youths who would be better advised to enter practical affairs.

Its effect on the general interests of the country is equally unfortunate. What a nation requires is not that the largest possible number of individuals should enter its universities, but that ability should be distributed among different employments in proportion to the need for it, and that those who are admitted to a university should undergo an intellectual discipline which will prepare them for positions of leadership and responsibility. There are, of course, many excellent students in Chinese universities, who are well qualified to turn to good account the education offered them. It remains true, however, that, as things are to-day, too many young men are misled into supposing that the mere fact that they are described as "students" confers distinction upon them. The traditional pre-eminence which, in the China of the past, attached to the scholar as one of a leisured class, exempt from manual labour, and with special opportunities of official employment, still clings to the student, and is even heightened, in some cases, by the prestige surrounding the possession—or supposed possession—of Western knowledge. By entering the universities youths become members of a small privileged caste, which not infrequently knows little of the life of the great mass of its fellow-countrymen and contributes little to its improvement. If later they take up, as many of them do, the profession of secondary teaching, they tend too often to produce in their pupils the same faults of superficiality and self-conceit as characterised themselves. It is essential, we think, not only that the quality of secondary education should be improved, but that university entrance examinations should be made more exacting, and that measures should be adopted to establish, as far as possible, a common standard. The form which such measures might assume is considered below.

(*b*) The second feature which has struck us in Chinese universities is the excessive number of hours given to formal instruction and, in particular, the tendency to place an undue reliance upon lectures as the principal, and some-

times, it would appear, as almost the sole, method of education. The degree of such reliance varies, it is true, from one department and subject to another; science students and students of technology, for example, give to laboratory and practical work part of the time which those in Arts departments devote to lectures. It is not open to question, however, that the lecturing programme of the majority of universities is exceedingly heavy. According to the information supplied us, the minimum number of lecture hours per week required for graduation is, in National Universities, approximately 20, and the maximum 22, exclusive of 9 hours' military training. Students are at liberty, however, to take a larger number, and, in fact, many of them do so. Examples have been brought to our notice of 25 to 30 hours being given to attendance at lectures. We have heard of cases in which the hours so spent actually amounted to 40.

We do not at all underestimate the utility of lectures. Properly used, as a supplement to other methods of teaching and to independent study, they are a fruitful source of stimulus and suggestion. But they are not properly used when they absorb so large a proportion of the time both of students and of teachers as they do at present. It is true, no doubt, that a lecture-hour normally does not exceed 50 minutes, and that it may be used for class-work as well as for a discourse by the teacher, though the latter appears to be by far the most general practice. It is true, again, that, as a result both of the deficiencies in the previous education of the students and of the scarcity of suitable works on certain subjects, lecturing may reasonably occupy a somewhat larger place in Chinese universities than is the case in countries where these conditions are not present to the same degree. When due allowance, however, has been made for such considerations, the fact remains that the oral exposition of the rudiments of a subject to bodies of students, who take notes and memorise them for the purposes of examinations held twice a semester, plays an altogether excessive part in Chinese university life.

Instruction carried to these extremes is the enemy of education. It tends to produce in all but the ablest students an attitude of unthinking dependence on the teacher's words, which does not necessarily imply a corresponding respect for his opinions or personality. Moreover, it impedes the

AGRICULTURAL SCHOOL IN SOOCHOW: EXPERIMENTAL GROUNDS

[*Facing p.* 166

development of other, and even more important, aspects of university work. Students who are habitually over-lectured have little interest or leisure for independent study; nor, if encouraged to rely with docile receptiveness on notes taken down from a teacher's dictation, are they likely to realise the necessity for it. Too often, as a consequence, instead of learning to consult serious works and to compare the views of different authorities, they confine their reading to text-books of a type which, even if suitable in a school, is miserable nutriment for active-minded young men. The seminar or class, in which ideas can be exchanged, problems raised and difficulties discussed in informal and intimate intercourse between the teacher and a small number of students, and where the apprentice can see at first hand the master at work, is the crown of the educational activities of many Western universities. Many, perhaps most, public universities in China are staffed on a scale sufficient to enable such work to be carried on far more generally than is the case at present. If it is still the exception—if some professors suppose that their duty is completed when they have delivered a lecture, and some students that no more is required of them than to hear it delivered—the reason is not, as a rule, that better methods are impracticable, but that the importance of adopting them has been obscured by a fundamental misconception of the function of a university. That function is not to supply students with information prepared for them in an easily digestible form by their teachers, but to cultivate in them an enquiring, critical and reflective spirit, to show them the methods by which knowledge is acquired, and to train them, in some small measure, to acquire knowledge for themselves. An education which neglects these essentials may be given in a university, but it is certainly not a university education.

(*c*) If we may judge by the opinions expressed to us, the desirability of a reduction in the number of lectures attended by students, of the development of seminar and tutorial work, and of greatly increased emphasis on the importance of independent study, is generally admitted. These changes, to which we return in our proposals for reform, should be accompanied in some universities by a reconsideration of certain aspects of the curriculum. Its character varies widely, of course, not only from university

to university, but within a single university, from college to college and from one department to another. But, while generalisation is impossible, three points suggest themselves which seem sufficiently important to deserve attention.

The first relates to the organisation of university work commonly known as the credit system. The arrangements described by that phrase are somewhat complicated, and vary in detail from one university to another. But their essential feature is that, in order to graduate, a student must obtain a certain percentage of a total number of points or credits, and that he is scoring these points, or accumulating these credits, during the whole period of his university course. The credit system differs markedly, therefore, from the arrangement obtaining in most European universities, where graduation depends upon success in an examination held at the end of the university course, supplemented, sometimes, by one held in the middle of it. In Chinese universities, on the other hand, graduation is achieved, so to say, piecemeal, by attending the necessary number of lectures, and obtaining the required percentage of marks in the four annual examinations during a period of four years. The first method is designed to test the results of the student's total work at the university. The second method is intended to ensure that a student reaches a certain standard in each successive part of his work, as and when he takes it. If, having reached that standard in a given part of his course, he then puts the subject concerned out of his mind, that fact does not affect the final result. He has scored the necessary points, and they are accordingly placed to his credit for the purpose of graduation.

To discuss in detail the merits of these two contrasted systems would take us too far afield. Our general view is that, while the credit system has certain conveniences, especially in dealing with students who are immature or ill-prepared by their previous education, it tends to break university work into a series of separate fragments to a degree which is altogether excessive. It is true, no doubt, that this tendency is partially counteracted by the requirement of a "major" and one or more "minor" subjects during the last two years of the university course. It is true, also, that the Ministry's regulations are intended to prevent students from acquiring the credits necessary for graduation

by taking individual courses of lectures—courses often consisting as practice of three lectures a week during a semester. The fact remains, however, that even so the arrangement is open to grave objections. It encourages students to regard their university course not as a rounded whole but as a series of hurdles or obstacles, each of which must be jumped in turn, and can then be left behind. In the words of a Chinese university president, "its consequence is that a student is graduated, when he has barely started to do university work. In other words, students study courses, and not subjects, and work for credits to get a parchment rather than to be properly initiated into a discipline of learning. 'Here a little, there a little'—and never very much anywhere."

The credit system is deeply embedded in Chinese educational organisation. We should wish to see it give place to an arrangement under which graduation takes place as the result of a final examination. We think that the Ministry should have that in mind as its objective, and should work out, with the aid of the Universities Council, the methods of attaining it at the earliest possible date. In view, however, of the strong hold possessed by the traditional arrangement, we doubt whether that change, desirable though it is on educational grounds, can be generally introduced in the immediate future. What we would urge, in the meantime, is that an experiment to test the merits of the two systems should be made in a limited field. We suggest, accordingly, that the Ministry should invite certain universities, which should be those where the standard of work and efficiency of teaching is at present highest, to make the experiment of abandoning the credit system in favour of that based on a final examination, and should, if necessary, modify its regulations in order to enable them to do so. There appears to be no reason why the two arrangements should not, for a time, exist side by side. During this interim period universities would work under that which seemed to them most likely to produce good results. The result would be a practical comparison of the two methods, which would enable a judgment to be formed as to their relative merits.

The second feature of the curriculum which has struck us is closely connected with that just considered. It is the character of some of the courses offered on different aspects

of the general subject—for example, history, literature, or political science—with which a department is concerned. It appears at present, at any rate in certain departments, to be unduly heterogeneous, with the result that the teaching of the subject seems occasionally in danger of being broken up into a series of separate specialisms unrelated to any common plan. It is proper, of course, that teachers who are experts in a particular field should make known the latest results of research in it; the larger the number of post-graduate students, and the higher the intellectual level of those who have not yet graduated, the more fruitful are such contributions likely to be. It is even more important, however, that the teaching of a subject should possess a due measure of unity and balance, that its central core should receive proper emphasis, and that its essentials should not be neglected in the pursuit of the novel or the esoteric. Topics do not become important merely because the individuals qualified to deal with them are comparatively few, nor is the fact that they are themselves relatively little studied sufficient reason for giving lectures upon them. The quality of a university is not to be judged by the variety of different courses of lectures which appear in its prospectus. Anything which savours of pretentiousness or display—anything, in short, which may lend colour to the charge of "window-dressing"—is peculiarly out of place in a seat of learning.

That consideration is not borne in mind, perhaps, by all those concerned in the arrangement of lecture courses so constantly as is desirable. But it has obviously a special significance when, as in most Chinese universities, the volume of post-graduate work is small, and the intellectual equipment of undergraduate students somewhat slender. The essential thing is not that they should be encouraged to wander up the bypaths, however attractive, but that they should learn that their subject has a centre which must be mastered by exacting effort, before its outskirts can be attacked with hope of success. If that lesson, the basis of all serious work, is to be taught, the teaching of some universities requires to be recast. It must be lightened and simplified. More emphasis must be laid on fundamentals, and the ornamental trimmings must be ruthlessly pruned.

The third aspect of the curriculum which calls for attention is one which has impressed us throughout our enquiry, and to which our notice has been drawn by more than one Chinese educationalist, but on which it is difficult for visitors from another continent to speak with confidence. It is the large use made of foreign materials, and the desirability that the medium of education in Chinese universities should be more predominantly Chinese in character. We recognise, indeed, that in this matter a considerable change is already taking place. An increasing amount of scientific apparatus is now manufactured in China; the teaching of biology is being influenced by the first-hand study of Chinese phenomena; while, thanks largely to the enterprise shown by the commercial Press, a new Chinese educational literature is gradually growing up. It still remains true, however, that not only are the majority of books studied by students in a foreign tongue, but that the examples employed to illustrate a principle, and the subjects to which the students' thought is directed by their teachers, are, to a surprising extent, of Western origin. A visitor who examines the plan of work in History, Political Science, or Economics in some universities of China may be pardoned if he feels uncertain whether it is designed for Western students who are studying China, or for Chinese students who are studying the West. In the Natural Sciences, the exotic character of much of the teaching is even more noticeable.

It is proper that a place of learning should be indifferent to the partialities of race and region, and the cosmopolitan spirit of Chinese universities is a matter for congratulation. Moreover, there are reasons, both good and bad, why foreign methods of presentation and foreign materials should be largely used in Chinese universities. On the one hand, certain subjects in their curriculum have hardly as yet been investigated from Chinese sources, and an adequate literature upon them in Chinese is still to seek. On the other hand, many Chinese teachers have received part of their education in Western universities. On obtaining a post in China they are tempted, instead of recasting their knowledge in a Chinese mould, to repeat the substance of lectures heard, or books read, in the West. The result is a tendency not merely to apply a foreign technique to Chinese

subject-matter—a course which, if the technique is the best known, is clearly desirable—but to draw the greater part of the subject-matter itself from foreign sources.

That tendency, though natural in the special circumstances of China, is one to be resisted. No educational system can be alive which has not its roots in the life around it. In so far as the teaching of universities is planned with reference, not to the realities of Chinese life, but to that given, or supposed to be given, in foreign institutions, culture is denationalised, imitation takes the place of original investigation and creative thought, and a generation is produced which is ill-prepared to play its part in solving the problems with which China is confronted, since it has not learned that they can be made the subject of scientific study. On the one hand, students are dealing with materials which are necessarily remote from their own experience and slip insensibly into the disastrous habit of memorising books, instead of observing facts and using books, in a critical spirit, as one instrument for interpreting them. On the other hand, because of that habit, they sometimes fail to acquire the training which is needed to enable them to grapple with the practical realities of Chinese life. The obstacle to the intelligent treatment of the natural sciences in secondary schools, which arises from an excessive reliance on foreign books, has already been emphasised; and what is true of the schools is true, in an equal measure, of the work done in certain universities. It is not unknown, for example, for a professor of agricultural science to be well-informed as to the conditions and methods of other parts of the world, but to find it difficult to apply his knowledge to those of China.

Nor is it only the natural sciences and technical studies which suffer from an excessive use of exotic materials. The subject which occupies the largest single group of students is law, and among students of law the subject taken by the largest number of students is Political Science, which is also studied in the colleges of Liberal Arts. Many of these young men will later be engaged in one branch or another of public administration. However desirable it may be that they should be acquainted with the institutions of other nations, it is even more essential that they should have a realistic grasp of those of China herself. If they have not

learned while at the university that Chinese economic and political organisation are as deserving of serious investigation as the stock exchanges and parliaments of Western nations, and that their first concern is, not the doctrines of Western theorists, but the needs of their fellow-countrymen, they will be ill-prepared to discharge with intelligence and zeal the responsibilities later imposed on them. At present, unfortunately, they sometimes seem to possess some measure of information as to every country except their own.

The difficulty of basing the work of universities to a larger extent upon Chinese materials is genuine, but it is not insuperable. There are institutions, indeed, where it is already being overcome. Certain universities have set themselves to make Chinese life and culture the kernel of their work, and to plan, as far as possible, their teaching so that light may be thrown from different angles on that central theme. The principal measures required appear to be two. The first is that, in deciding the elements in the curriculum and the literature to be used, the principle of selection should be their relevance to the needs of men and women who will spend their lives in China. The second is that, in appointing teachers, regard should be had, not merely to their general educational attainments, but to their capacity to deal with Chinese materials. The lecturer who left China for a foreign country at an age when he was too young to possess any serious body of knowledge as to the life of his own nation, and who, since his return, has lacked the leisure or initiative to obtain it, is too common a figure in some universities. The aim should be to make him a rare exception. It would be reasonable, in our view, before appointing a teacher to any permanent position, to require him to show not merely that he possesses adequate knowledge of his subject, but that he is able to apply it to the special conditions, intellectual and social, existing in China.

(*d*) The aim of a university, as of other educational institutions, is to prepare its members for life, and for life in a society. It is to produce, not merely scholars and scientists, important though that is, but sensible and public-spirited human beings, who have acquired in youth the habits of mutual confidence, self-control and tolerance that will

enable them as men to co-operate with their fellows for the common good, and to play a responsible part, according to their varying powers, in the service of their country. How far do Chinese universities achieve that object? Do they succeed in fostering in their students the qualities which are the foundation of good citizenship in such measure as, without any extravagant idealism, may reasonably be expected?

These questions, though crucial, are not easily answered. Chinese educationalists of wide experience have repeatedly spoken to us of what they variously describe as the lack of discipline, contempt for authority or anti-social spirit prevalent in certain universities. They have deplored its effects not merely upon the institutions concerned, but on the political and social life of China; and have insisted that, until this fundamental defect is remedied, other educational reforms are unlikely to be carried through, or, if carried through, to be effective in practice. Academic, like other conventions, differ from nation to nation, and the subject is obviously one on which visitors must necessarily express themselves with due reserve. It is our duty, however, to record the facts as we see them, and we feel bound to state that the strictures on the unsatisfactory *moral* of certain universities appear, unfortunately, to be only too well-founded.

There are, doubtless, some institutions, perhaps a majority of institutions, to which they do not apply; but the evidence as to others is too weighty to be dismissed. It is not a question of lapses by individuals, which are, clearly, unavoidable, nor of waves of excitement carrying students into mass movements at moments of national crisis. What is serious is not the occurrence of occasional outbursts in response to abnormal provocation, but the permanent conditions of which they are merely one, and not the most important, symptom. It is the existence at certain universities, sometimes for years together, of a state of internal disorder, and of misunderstanding or tension between students and the authorities, which lowers the whole standard of educational work, prevents the introduction of necessary reforms, and threatens at times to reduce academic life to chaos. Instances have been brought to our notice in which bodies of students have insisted successfully on their

right to attend only two-thirds of the lectures prescribed and to be credited with attendance at the whole number; to suspend the work of a university at their own discretion, in defiance of the decision both of the academic authorities and of the Ministry of Education; to prescribe the character of lectures and the books to be studied on a subject of which their knowledge was rudimentary; to dictate the nature of examinations; to dismiss teachers and administrators, including university presidents, of whom they disapproved; and to veto the application of policies affecting universities on which the Government had decided.

Some of all this, no doubt, has its comic side; if no more were involved than the cheerful turbulence which is natural to the young, it would be superfluous to refer to it. What is distressing is that a good deal of the academic disorder which gives rise to criticism appears to be the result, less of high spirits, than of disillusionment among students, neglect of duty by teachers and weakness on the part of administrators. The effect both on the quality of university education and on the tone of public life, which is necessarily affected by recruits entering it from the universities, is extremely grave. It is reasonable that students should be consulted as to academic affairs which intimately concern them; but universities exist for the nation, not for the particular generation of undergraduates who happen, at any moment, to be in attendance at them, and, if students claim to be treated as men, they must not be encouraged to behave like spoiled children. The recurrent wrangles, carried on in an atmosphere of dreary intrigue and humourless exasperation, which disfigure the life of some, though, doubtless, a minority, among Chinese universities, are ruinous to the well-being, not only of the institutions concerned, but of China herself. If the rising generation is schooled in its youth to recognise no authority but its own caprices, it is improbable that later it will serve its country with disinterestedness and good sense. If a university conveys, for whatever reason, that disastrous lesson, it would be better, in the public interest, that the university should cease to exist.

In so far as the conditions which produce these evils are political or economic, they are outside our purview. For some of them, however, the character of the existing uni-

versity system is itself, in our judgment, responsible. The manner in which many Chinese universities are staffed and their work organised is not favourable to the establishment of the cordial personal relations between teacher and taught which are the natural guarantee of harmonious co-operation. Students cannot have a reasonable degree of intimacy with lecturers and professors whose duties are confined to delivering lectures, or who divide their time between several institutions; nor can they respect those whose interest appears to be given rather to the emoluments of their profession than to the welfare of their pupils or the advancement of knowledge. It is essential, in our view, that all university teachers should realise, as some already do, that their function is not merely to impart information at stated hours, but to know the difficulties, intellectual and social, which present themselves to students, to advise them, individually or in small groups, as to the planning of their work, and to play the part, not merely of instructors, but of consultants and friends.

For this reason the changes suggested in an earlier section of this chapter—in particular, the reduction in the number of part-time teachers, the requirement that teachers, unless special permission is given in exceptional cases, shall devote themselves to one university, and the development of seminar and tutorial work—are the condition of improving, not only the intellectual standards, but the *moral* of universities. If it is held that the burden which such duties would impose on teachers is excessive, universities should consider the desirability of appointing one, or more, Directors of Studies for the students of a given year in each department, to supervise their work, to whom they can turn for advice as occasion arises. In addition, it would be expedient, we think, that further trial should be given to the policy already adopted, we understand, by certain universities, of giving representatives of the students a recognised place in the academic constitution, and of consulting them on the organisation of studies; questions of discipline; and other matters of common interest.

If it is proper, however, that the wishes of students should be taken into account, it is not less essential that rules, once made, should be enforced till amended. When a policy has been decided on, university authorities must carry it out,

and, in doing so, must be able to count with confidence on the resolute support of the Ministry of Education. The one course which combines all possible disadvantages is that of first making regulations and then suspending their operation in deference to clamour.

(*e*) A university is not only a place of education. It is also an institution for the advancement of learning. The gifted teacher need not necessarily, indeed, be a pioneer in new fields; but the function of some part, at least, of the staff of a university is, in addition to teaching, to carry on research, and to train a fresh generation of scholars and scientists who will make, in their turn, a contribution to knowledge. The question is whether it would be to the benefit of Chinese universities and of the country as a whole were this side of academic work more systematically developed.

We think that it would. A high standard of scholarship is traditional in China, and a keen interest in the natural sciences has grown up in the course of the last two generations. She possesses important research institutions, unconnected directly with the universities. Individual teachers in universities, both public and private, are doing valuable original work in their different fields. Certain universities make organised provision for post-graduate study. Hitherto, however, the great majority have not done so, either because the supply of qualified students is not sufficient to justify it, or because they feel that they are not adequately staffed and equipped for the purpose.

It is important, in our view, that such provision should be increased. The value of the work done by bodies such as the Academia Sinica and the Geological Survey, which are not part of the university system, is too generally appreciated for it to be necessary for us to emphasise it. Institutions, the staff of which is free from the obligation to teach, and which can, as a consequence, organise their research so as to relate it directly to the problems arising in practical life or in the international world of science and scholarship, possess obvious advantages. Their very independence of academic duties, however, implies that they have, to that extent, less opportunity for training young students in methods of research than a university in which research and teaching are carried on together.

It is much to be desired that facilities for obtaining such training should be more abundant in China than at present they are, and that students should not, so generally as at present, find it necessary to resort to foreign universities in order to obtain them. It is an equally important consideration that a greater development of post-graduate work at the universities themselves is essential to their full vigour as centres of education. Unless a professor keeps abreast of new work on his subject, the instruction which he offers his pupils becomes stale and mechanical. Research vitalises teaching, teaching gives zest to research. Nor must it be forgotten that the problem of making the curriculum of schools and universities more native to China can be solved only in so far as the necessary materials are investigated and organised. The proper institutions to create a culture at once modern and Chinese are the universities of China.

Chinese universities, as has already been pointed out, are not, as a rule, understaffed. If the excessive time devoted to lecturing can be diminished, as on other grounds it ought to be, it should not be impracticable for a larger number of universities than at present to find the personnel required for the development of post-graduate work. Unnecessary duplication is, of course, to be avoided, and, in deciding the lines on which such work should proceed, a university must have regard to the character of the research being carried on elsewhere. A more serious obstacle consists, not in the difficulty of securing that teachers enjoy sufficient leisure, but in the fact that the number of students in any one university qualified to profit by advanced studies is normally too small to supply a single institution with the basis for post-graduate work of a continuous and systematic kind.

In view of that difficulty, and of the fact that, as mentioned above, there is in a small number of areas an oversupply of universities giving a general education of a very similar type, it seems to us desirable that certain among them should be definitely set aside as post-graduate institutions. The details of such a policy must be worked out later by the Universities Council, the establishment of which is proposed below; but we should suggest that, in the first instance, the institutions in question should not exceed two concerned respectively with, on the one hand, certain branches of natural science, and on the other hand, the

social sciences, including history, economics, political science, sociology and law. We need not repeat what has been said above as to the importance to the nation of ensuring that, in both these great departments of knowledge, work is done which is alive, because native to China and not a mechanical reproduction of materials derived from a foreign culture. If our suggestion were adopted, opportunities for advanced work at home would be increased, and the argument for teaching students abroad on the same scale as at present would be correspondingly weakened. It would be reasonable, in that case, that part of the funds now employed in enabling them to study in foreign universities should be applied to the assistance of post-graduate institutions in China itself.

(*f*) The last suggestion raises a problem which, though not directly connected with the internal organisation of Chinese universities, has an important bearing on university education in China. It arises from the tendency of such students as can afford it, or can secure the necessary assistance, to obtain their university education in foreign countries. The condition of studying abroad is that the individual should obtain from the Government a certificate authorising him to do so; 1,484 such certificates were issued in 1930, and the total number of students in foreign universities amounted in that year to 5,032,[1] of whom the majority were found in Japan and the United States. The cost is defrayed in the great majority of cases by the families of those concerned, but a certain number of students received scholarships from the National Government[2] or from provincial authorities. The expenditure involved is in the aggregate considerable. It is estimated (including that borne by students and their families) to have amounted in 1930 to not less than $9,900,000, or approximately two-thirds of the total expenditure of the National Government on education in China.

It was natural that, when Chinese university education was still in its infancy, Chinese students should seek abroad the modern knowledge which they could not obtain at

[1] Including 1,149 taking shorter courses and 1,268 in preparatory departments.

[2] Of the 1,484 students granted certificates in 1930, 155 had financial help from the Government.

home. It is questionable, however, whether to-day, when there are 59 universities in China herself, it is equally in the best interests of the country that so large a body of young men should acquire their education in foreign institutions. Chinese educationalists have expressed to us their anxiety on the subject, and we think it is well-founded. It is most desirable, of course, that men of mature years and proved ability should have the opportunity of working under eminent foreign teachers; but the great majority of students who resort to foreign universities are not of that type. They enter them as undergraduates, and the subjects which they study are identical with those taken by students in Chinese universities.[1] Some of them, no doubt, profit greatly by their opportunities, but it is difficult to resist the conclusion that a considerable number do not. They have been attracted to foreign universities by the prestige of a foreign degree, and by the expectation that it will smooth the path to profitable employment in China. Some of them are ill-prepared by their previous education to turn a period of study abroad to good account. They leave home young, and, when they return, find it difficult to adjust themselves to work in China.

It seems to us, therefore, that a change of policy is required. In the first place, certificates of permission to study abroad should be granted much more sparingly than is the case to-day, and only in quite exceptional cases to undergraduate students. In the second place, the scholarships now given for the purpose by the National Government and the provinces should be used primarily as a means of assisting men who are qualified to do advanced work for which no adequate facilities at present exist in China. They should be awarded, that is to say, to post-graduate students of genuine promise and to persons already engaged in teaching at a university, who desire to carry on research under a foreign scholar.

4. Proposals for Reform

It would be misleading to refer to the weaknesses of Chinese universities without emphasising again the great services that

[1] The figures for 1930 show that, out of 3,615 Chinese students abroad taking degree courses, 1,379 were studying Law and 565 Liberal Arts.

they have rendered. It must be confessed, however, that the successes of particular institutions and individual teachers are achieved rather in spite of the system than because of it. If China is to turn to the best account the wealth of ability in the rising generation—if, indeed, she is to avoid the great evil of a half-educated and irresponsible intelligentsia—a deliberate and continuous effort must be made to raise the standard of university education.

The general character of the defects to be overcome and the reforms which are needed has already been indicated. Some of these reforms can be made on the initiative of the universities themselves; others depend upon action by the state; all demand, if they are to produce their full result, whole-hearted and continuous co-operation between academic authorities, the Ministry of Education and public opinion. We proceed now to summarise, under different heads, the specific measures which we recommend should be adopted, with such preliminary explanation of their objective as is needed to make clear the necessity for them.

A. The Ministry of Education and the Establishment of a National Universities Council.

Owing to the historical conditions in which it has developed university education in China suffers gravely from lack of unity and system. It is necessary that it should now be viewed as a whole, and should be organised in accordance with a definite plan, which takes account both of the educational and social needs of China and of the relation of the universities to other parts of the educational system.

The proper authority to frame such a plan and to supervise its application is the Ministry of Education. It is recommended, therefore, that more regular and continuous action should be taken by the Ministry to improve the organisation and educational standards of the universities. The principal matters on which such action is required, and the lines on which it should proceed, are set out in detail below. They include (*a*) the determination of the number and types of public universities to be supported in different areas, (*b*) the allocation between them of the funds available for university education and the settlement of the terms on which grants shall be paid them, (*c*) the appointment of presidents and professors, (*d*) the issue of regulations, laying down conditions

as to staffing, salaries, promotion and equipment, (*e*) the promotion of co-operation between universities and the maintenance of a reasonable uniformity of standard in entrance and other examinations, and, generally (*f*), the application of such measures as are needed to promote the efficiency of university education and administration.

In order that the Ministry may perform these duties with success, it is necessary that it should be assisted by the best expert advice available, and should command the full confidence and support of academic and public opinion. It is accordingly recommended that a National Universities Council shall be established to assist the Minister in a consultative capacity. It should consist of not more than thirty members, and should include university teachers and administrators, persons eminent in public life, and representatives of the Ministry. Its personnel should, in the first instance, be nominated by the Minister, but arrangements should be made as soon as possible to enable the representatives of the teaching and administrative staffs of universities to be elected by their colleagues. The duty of the Council should be to advise the Minister on all matters relating to university education, including those referred to above, and action should be taken on them by the Minister only after consulting it. It should have its own secretarial staff, hold a full meeting not less often than twice a year, and in the interval should carry on its work by means of sub-committees.

We recognise that the great distances and defective communications of China offer obstacles both to the exercise by the Ministry of such measure of control as seems to us desirable and to the creation of a representative council. But these difficulties, though genuine, do not, in our judgment, invalidate our proposals. The great majority of universities are situated in the east of the country; as was pointed out above, nearly two-thirds of the university students of China are to be found in Peiping and Shanghai, both of which, as well as the important university centres of Tientsin, Hankow and Hangchow, are within reach of Nanking. Even, therefore, if representatives from the parts of the country more distant from the capital could not attend the Universities Council, it would be in contact, nevertheless, with the major part of the university system. The value of the work which, even thus limited, it could do can hardly be

exaggerated. By bringing together leading members of the universities it would at once keep the Ministry in close touch with academic problems, bring practical experience to bear on their solution, and make possible the development of a well-considered and continuous policy, which would be the more likely to be approved by the universities because university representatives had taken part in making it.

B. Unification and Co-operation

It is desirable that the number of separate universities should be diminished, and that there should be a rational division of labour, and closer co-operation, between different institutions. It is too frequently the case that there are several weak institutions in a given area, instead of one strong one. Certain departments of study receive a disproportionate attention to the neglect of others. There is needless duplication and overlapping between different universities. The result is educational inefficiency and waste of public money.

The measures which it is recommended should be adopted are as follows:—[1]

(*a*) Where several public universities exist in or near a single city, the Ministry of Education, acting on the advice of the National Universities Council, should take steps to reduce their number. There is no adequate justification, for example, for the existence of four separate national universities at Peiping and Shanghai. While it may be desirable that universities specialising in some particular line of work should continue as separate institutions, institutions covering the same field of knowledge should as far as possible be unified.

The degree and form of unification to be introduced in any particular case must depend upon the special circumstances of particular institutions and areas. Two alternative methods are possible and should receive consideration,

[1] It should be noted that, in order to avoid subsequent difficulties, measures reducing the number of separate universities should, as far as is possible, be brought into operation before those recommended below (*C.*—The Staffing of Universities) for fixing the number of university chairs and stabilising the position of teaching staffs. If they cannot be carried out first, it should be made clear that they are in contemplation, and that all academic posts are held on that understanding.

namely, either, *first*, the complete amalgamation of the universities concerned or, *second*, their conversion into constituent colleges of a single federal university. In the first case, the existing universities would cease to exist, their buildings, other property and staffs being transferred to the new institution which took their place. In the second case, they would retain their identity, but would do so as subordinate parts of a larger organisation, which would lay down regulations for the maintenance and improvement of educational standards, and would be responsible for matters affecting the university as a whole, including finance and examinations.

The first course is the simplest and offers the largest advantages, in the matter both of educational efficiency and of economy. It should, therefore, whenever possible, be adopted. If—which we hope will not be the case—it is rejected on grounds of sentiment, the second, though less satisfactory in itself, and less easy to administer, would be a substantial improvement on the arrangements at present obtaining. Whichever policy be followed, its detailed application must obviously be worked out by the Ministry in the light of the latest available figures and with the aid of specialist advice. It must be insisted, however, that the introduction of a bold scheme of unification of some kind is essential. Both on educational and on financial grounds, the continuance of the present anarchy is wholly indefensible.

(*b*) There should be greater diversity of type between different universities. The number devoting their principal attention to general courses, including law and political science, and liberal arts, should be diminished; the number of those which give a position of primary importance to the natural sciences, and to one branch or another of technology, should be increased. In order to correct the undue uniformity existing to-day, and to increase the facilities for higher technical training, the Ministry of Education should convert certain universities into technological colleges. In addition, with a view to increasing the facilities for advanced academic work in China, it should select certain universities, not, in the first instance, exceeding two, as institutions for post-graduate study. The decision as to the particular institutions that should be chosen for these purposes should be made by

the Ministry on the advice of the National Universities Council. (See below.)

(*c*) In order that the system of university education may, as far as possible, be planned as a whole, it is desirable that all public universities should be directly responsible to a single authority. It is recommended, therefore, that the provincial universities should become National Universities, financed and controlled, like the existing National Universities, by the Ministry of Education.

(*d*) Where two or more separate public universities continue to exist in a single city, it is essential that there should be the fullest possible co-operation between them. They should agree, that is to say, to establish a reasonable division of labour, to avoid needless duplication of courses, to encourage students to attend lectures at whichever of the institutions concerned can most conveniently treat a particular subject, and to maintain common standards in entrance and other examinations, and in matters of discipline. The Ministry of Education, before approving applications for grants, should satisfy itself that arrangements for effective co-operation have been made.

(*e*) The existence of registered private universities introduces a valuable element of variety into the university system, while the requirement as to registration adequately safeguards the public interest. It is desirable, therefore, that, subject to compliance with the conditions laid down by the Ministry, these universities should continue in existence. There is not the same justification for the existence of unregistered private universities, many of which appear to be highly unsatisfactory. Except in the special case of convincing evidence being presented that the continuance of one or other among them is desirable on educational grounds, the unregistered private universities should be closed.

(*f*) It is important that the registered Private Universities should be worked as closely as possible into the national educational system. When, as is frequently the case, Public and Private Universities exist in the same area, the authorities of both should arrange for the maximum possible co-operation between them on the lines suggested in (*d*). For the same reason, it is desirable that the registered Private Universities should be represented on the National Universities Council.

C. The Staffing of Universities

The improvement in the quality of university education involves an improvement in the position of the staffs of universities. For the reasons given earlier in the present chapter, that position is often, perhaps generally, unsatisfactory in the extreme. University presidents, though appointed by the Government, frequently lack the support which they have a right to expect from it. The administrative staffs of universities are, in some cases, excessive, nor are their members invariably appointed with a single eye to their fitness for their work. The status and duties of the different grades of teachers are ambiguous and ill-defined; their economic position is precarious, and they are liable to be exposed to political pressure of an improper character which interferes with academic freedom. The high percentage of part-time teachers, and the prevalence of the practice of professors teaching at more than one university, results in a conflict of duties, and is incompatible with the establishment of personal relations between teachers and students in the measure desirable.

The following principles should be adopted:—

(*a*) Presidents of public universities should be appointed by the Ministry of Education, on the advice of the National Universities Council. Such appointments must be made with a single eye to the educational eminence and administrative capacity of the individuals concerned, and political considerations must be rigorously excluded. Once appointed, they must be able to count with confidence on the backing of the Ministry, and the grave scandal of the Government throwing over its own nominees in deference to intrigue or clamour must not be allowed to recur. It is clearly impossible for a university president to administer his office with energy and decision unless he can rely on the loyal support of authority which appoints and to which he is responsible.

(*b*) There should be at each university an academic council elected by the professoriate. Its duty should be to advise the president on matters of staffing, curriculum and discipline, and generally to assist him in the administration of the university.

(*c*) There should be at each university a definite number of chairs, the holders of which would be regular professors.

The number, and the subjects on which they are to be established, should be determined by the Ministry, on the advice of the National Universities Council, after consultation with the president and academic council of the university concerned.

(*d*) The qualifications required for appointment to different professorial chairs should be laid down by the National Universities Council. The appointments should be made by the Minister, after hearing the views of the president of the university concerned, on the advice of his council.

(*e*) The system under which professors hold their posts on a yearly or two-yearly contract must be ended. They should be appointed for life (i.e. till the age fixed for retirement), subject to six months' notice on either side. In the exceptional event of its becoming necessary to dismiss a professor, the Minister should do so only after consulting the National Universities Council, and the professor concerned should be entitled to be heard by the Council in person.

(*f*) Lecturers, assistants and members of the administrative staff of universities should be appointed by their presidents. The number of persons holding, or to be appointed to, such posts should be communicated to the Ministry of Education annually when application is made for financial assistance, and should be approved by it. Lecturers and assistants should be appointed in the first place for one year on probation, and subsequently, unless their services are then dispensed with, for not less than three years.

(*g*) The remuneration of different grades of university teachers should be standardised in such a way as to eliminate the excessive disparities between the salaries of different sections of the teaching profession which exist at present. For this purpose the Ministry of Education should prepare and issue regulations fixing a scale of salaries and defining the conditions of employment and promotion, and the age of retirement. Further, with a view to increasing the security of the teacher's position, and diminishing the incentive to undertake work additional to his academic duties, it should investigate the practicability of introducing a pension scheme, and the form which, in the special circumstances of China, such a scheme could most advantageously assume.

(*h*) The employment of part-time teachers on the scale which obtains to-day, and the system under which professors

and lecturers make a practice of teaching at more than one university, are injurious to the best interests of university education, and should be discontinued. In future, not less than 85 per cent of the staffs of universities should consist of full-time teachers. Professors and lecturers should be informed that it is a condition of their posts that they shall devote their whole time to the institution appointing them, and that, in the event of their receiving an invitation to give a course of lectures elsewhere, they must, before accepting it, obtain special permission to do so from the president of their university. While such permission should not be unreasonably withheld in cases where no prejudice to the university employing them is involved, it should be clearly understood that teachers who undertake work at other institutions without first obtaining it *ipso facto* vacate their posts.

(*i*) It should be made clear that the duties of university teachers include, not merely the delivery of lectures, but seminar and tutorial work, and the advancement of knowledge. It is essential that their work should be so organised as to leave them sufficient time to carry on research, and to keep abreast of the progress of science in their different fields.

D. Finance

The financial relations between universities and the State are not satisfactory. While nine-tenths of the cost of national universities is defrayed by the Government, the power which it possesses to insist on an improvement in the organisation of the university system is not sufficiently used. No clear principle is observed in determining the amount to be paid to different institutions. The reasonable requirement that, as a condition of receiving public money, a university shall satisfy the Ministry of Education that it is educationally efficient and properly administered, is not adequately insisted upon. Grants of money promised to universities are frequently in arrears.

The following principles should in future be observed:—

(*a*) The sum to be spent annually on university education should be determined by the Government, after consultation with the Ministers of Education and Finance.

(*b*) When this sum has been determined, it should be

allotted among different universities by the Ministry of Education, on the advice of the National Universities Council, after a consideration of the reports and estimates submitted by the universities.

(*c*) In determining the allocation between different institutions of the funds available, the Ministry should have regard both to the requirements of the university system as a whole and to the quality and needs of particular institutions. It should both consider, that is to say, whether the number of separate institutions is excessive and should be reduced, and satisfy itself that those applying for grants are educationally efficient and properly administered, and that they comply with its regulations as to staffing, salaries and other matters. In the event of its deciding that a university is superfluous or unsatisfactory, the Ministry should, after due notice has been given, withhold its grants. It should on no account pay money to a university merely because such payment has been made in the past. On the contrary, it should use grants made by the State as a means of insisting that the necessary reforms in university education are carried out.

(*d*) It is important that universities may be enabled to plan their work in advance, with the knowledge that the necessary funds will be available to enable plans made to be carried out. It is desirable, therefore, that both the whole sum to be spent on university education, and the grants to be made to particular universities, should be stabilised for periods of not less than two, and if possible, of three years.

(*e*) The practice of allowing payments promised to universities to fall into arrears is ruinous to the efficiency and *moral* of the institutions concerned. It is essential that, when the Ministry of Education has informed a university of the amount of the grant to be made to it, that sum should be punctually paid. A smaller grant paid promptly, at the moment when it is due, would produce better results than a large one paid irregularly.

E. Educational Standards and Methods

The educational standards obtaining in some universities are unnecessarily low. Students are admitted to them who are not qualified by their previous training to do work of

a university standard. Too exclusive a reliance is placed upon formal instruction, in particular lecturing, and too little attention devoted to seminar and tutorial work, and to the need of encouraging independent study. The variety of courses of lectures offered is not infrequently excessive, while insufficient care is given to ensuring that students are thoroughly grounded in the elements of the subject studied. The use of foreign materials in the curriculum is sometimes excessive. The relations between teachers and students are not sufficiently intimate, with results injurious both to the educational efficiency and to the *moral* of the institutions concerned. The provision made for post-graduate work is inadequate.

Proposals have been made above for improving the position of the staffs of universities. In addition, the following measures should be introduced:—

(*a*) The Ministry of Education should establish a common university entrance examination, either, preferably for all public universities, or, if that is held to be impracticable, for certain large groups of universities to be determined by the Ministry. The examination should be conducted by a Board composed of university teachers nominated for the purpose by the Minister and of representatives of the Ministry. Care should be taken *to ensure* that the standard required is such as *to ensure* that only students qualified to profit by a university education are admitted to universities. Candidates should be required to state, in order of preference, the universities which they desire to enter, those successful being then distributed among them according to the accommodation available and to their place in the examination.

(*b*) Universities should revise the organisation of their work with a view to diminishing the number of hours for which students are required to attend lectures, and increasing the time given for seminar, tutorial and (in subjects where it is appropriate) experimental work. The Ministry of Education, in examining the reports and programmes of work submitted by universities applying for grant, should satisfy itself that these essential points have received attention, and should amend its regulations so as to ensure that they do not impose the present excessive burden of lectures on teachers and students. As stated above,

all university teachers must understand that their duties include not merely the delivery of lectures, but seminar and tutorial work.

(*c*) The arrangement under which students graduate by accumulating "credits" throughout their university course is open to serious criticism on educational grounds. The Ministry should aim at substituting for it, as soon as is practicable, a system under which graduation takes place as the result of a final examination. Pending the general introduction of that change, it should encourage its adoption by individual universities, and should, if necessary, modify its regulations so as to make such action possible.

(*d*) The teaching programme of certain universities requires to be revised. On the one hand, it gives insufficient space to the fundamental elements of the different subjects, which all students studying them must thoroughly master before they can enter with advantage upon their less essential aspects. On the other hand, it does not make as full a use of Chinese materials as is both desirable or practicable. The correction of these weaknesses is in the first place a matter for the universities themselves. As stated above, they should make every effort to plan the curriculum and select the literature used with reference to the needs of men and women who will spend their lives in China, and, in appointing teachers, should consider, not merely their general qualifications, but their ability to handle Chinese materials and to apply their knowledge to the special conditions of their own country. But the Ministry should call the attention of university authorities to these needs, and should satisfy itself that steps are being taken to meet them.

(*e*) An increase in the amount of independent study demanded of students is essential. It is necessary to ensure, not only that they have adequate leisure for the purpose, but that the necessary library facilities and accommodation are available. There are certain universities where this is not at present the case. The Ministry of Education, in considering applications for grants, should give special attention to these requirements. If necessary, it should require part of the allocation to a university to be spent on the improvement of the university library, and on the provision of seminar rooms.

(*f*) The recurrent defiance by students of university

regulations, and the tension between students and staffs, to be observed at certain universities, are injurious both to educational efficiency and to the well-being of China. While the removal of these evils depends partly upon conditions outside the control of academic authorities and the Ministry, it is within their power greatly to diminish them. In order that this result may be achieved, it is necessary, as stated above, that the position of teaching staffs should be stabilised, that they should devote their whole time to a single institution, and they should regard the establishment of close personal contact with students as an essential part of their duties. In addition, where it does not already exist, machinery should be established through which regular consultation can take place between representatives of the students and the governing bodies of universities on matters of common interest. University authorities must be able to count with confidence on the support of the Ministry of Education in carrying out policies once decided on.

(*g*) The provision at present made for research and post-graduate work is inadequate, and should be increased. It is necessary that the work of university staffs should be so arranged as to leave them sufficient time to contribute to the advancement of knowledge in their respective fields. Further, the Ministry of Education should consider the desirability of converting certain universities into post-graduate institutions.

(*h*) While it is desirable that university teachers and post-graduate students should have the opportunity of studying abroad, it is not in the best interests of China that more than a small number of undergraduate students should be encouraged to do so. Public expenditure on this purpose should be drastically reduced. The funds released should be applied to the improvement of education in China, including the post-graduate institutions referred to above.

5. Conclusion

The reasons for these recommendations have been explained in the paragraphs 2 and 3 and need not be recapitulated. The principles on which our proposals rest are already, if

we may judge by the opinions expressed to us, widely accepted. No scheme of reconstruction can do more than create the conditions required to give free play to the spirit of education, nor can those conditions be established by a single stroke of the official pen. Though the reform of the university system can be begun immediately, it is only as a result of a systematic policy steadily pursued over the period of a generation that it will yield its full results. The essential requirement to-day is, not the further enunciation of laudable generalities, but a sustained and continuous effort by the Ministry of Education and academic authorities to translate principles into practice. If that effort be made, we see no reason why Chinese universities should not become—what some of them already are—institutions of which any nation would have a right to be proud.

CHAPTER IV

ADULT EDUCATION

ADULT education is one of the most satisfactory features of education in China. There are two special aspects of adult education in China which differentiate it at first sight from the work of the corresponding organisations in Europe and America. In the first place, it bulks much larger in the educational system as a whole, and its budget is proportionally far bigger than in other countries. In the second place, it stands in China for something very different, both in its character and its essential aims, from adult education in Europe and America. In Germany and England, for instance, adult education means supplementary courses given to adults who are already engaged in a profession or in some form of manual labour, with the object of improving their minds and strengthening their sense of responsibility. Greater skill in their profession and the use of their spare time are subsidiary objects. The ordinary programme of adult education in Europe and America presupposes at least that the pupil has had a complete elementary education. In a country where the percentage of illiterates is somewhere about 80, the teaching of reading and writing is bound—as in Russia and Turkey—to be the main object of adult education, not merely in order to put an end to illiteracy, but also to induce adults to have their children better educated, and to win them over to the cause of the extension of education. Adult education is also here, as a rule, the principal form of social education. It is only logical, therefore, to associate with it museums and libraries and those other forms of educational activity which in other countries are left to artistic and scientific bodies. The cult of sport and the use of workers' spare time also have a place in the scheme of social education. Educational activities for adults fall under three main heads, viz.:—

(1) The education of adults who have had no opportunity of acquiring the rudiments; this includes the campaign against illiteracy, popular schools, social centres for the education of the masses, etc.

(2) Subsidiary organisations for adult education and advanced study (libraries, museums, etc.).

(3) Social education in general, viz. aesthetic education, improvement of social manners and popular pastimes, popular physical education, general culture, etc.

In the Ministry of Education, it is the Department of Social Education that deals with these questions. The Department has three sections. Section I deals with the following questions: (1) Popular education; (2) phonetic symbols and the campaign against illiteracy; (3) popular readings for the masses; (4) supplementary education for the rural, industrial and commercial populations; (5) supplementary vocational training; (6) special education for the abnormal and infirm; and (7) the calendar. Section II deals with the following matters: (1) Social centres for the education of the masses, and popular lectures; (2) museums; (3) preservation of antiquities and ancient books; (4) aesthetic education; (5) improvement of social manners and popular pastimes, and (6) physical education of the people. Section III deals with (1) libraries, (2) the Library of the Ministry and (3) the National Educational Museum.

The education authorities of the provinces and big cities have also in many cases very important sections for social education.

As regards the organisation and extension of activities in connection with adult education in general, the leading provinces are Hopei, Kiangsu and Shekiang, though others have also been more or less active in the same direction, viz. Hupeh, Honan, Shansi, Fukien, etc.

Various provinces maintain special institutions at their own expense, in which courses are provided for 2, 3 or even 4 years for the training of social workers (e.g. in Kiangsu and Shekiang), or 1-year courses for the training of organisers of adult education. These establishments and courses provide the Hsiens with a specially trained staff. They also engage in research work. We have had personal knowledge of a quite admirable institution of this kind. The directors of these institutions aim both at training various classes of workers in the vast field of adult education, and at conducting research and experimental work in the same field. With this dual object in view, they endeavour to

(1) multiply the number of students, so as to provide an increasing number of specialists in the work of educating the masses in towns and country;

(2) study the aspects of the education of individual adults in China, and at the same time in other countries, with a view to comparison;

(3) promote the publication of simplified text-books and suitable readers, to prevent the movement from being impeded by lack of material.

Special-training classes are frequently arranged for elementary-school teachers and other persons who, having already received a general training, are anxious to devote themselves to social education in a more limited field (the canton or village). In many provinces special committees have been formed of inhabitants of particular Hsiens, for the purpose of collaborating with the competent educational authorities in the work of adult education. Vigorous propaganda is conducted for the purpose. All this gives the work in question a genuinely systematic character.

But the work is still in its initial stage, and is undoubtedly inadequate at present to cope with the immense needs of the country; although this does not preclude its rapid development along a variety of lines. The following, for instance, are figures relating to the province of Shekiang:—

	Year.		
	1928-1929.	1929-1930.	1930-1931.
People's Educational Centres ..	11	49	82
Libraries	73	82	46
Playgrounds	57	51	17
Moving Libraries	10	40	76
People's Schools	331	1,008	1,760
Continuation Schools	—	42	35
Enquiry for Labour Posts	—	2,237	4,411
Newspaper Posts	284	719	2,114
Reformed Tea-houses	24	46	50
Parks	—	34	42
Recreation Centres	—	100	185
Lecture Institutions	—	44	4
Total	790	4,452	8,822

(A number of libraries, playgrounds and lecture centres have been converted in the past year into People's Educational Centres.)

The principal adult educational institutions in China are the "people's schools," the main object of which is to combat illiteracy and to give the people some sort of social and civic education. In 1929–1931 there were 1,760 of these schools in the province of Shekiang and 1,280 in Kiangsu. The Ministry of Education is making intensive preparations to increase the number of these schools, and even proposes to make attendance to a certain extent compulsory for the adults for whom they are intended. Efforts of this kind are deserving of the highest praise, though the realisation of their aims is beset with immense difficulties.

It would be desirable to interest the teaching profession as a whole, and elementary teachers in particular, in the development of "people's schools." The work done by the teachers in connection with these schools might well form a subsidiary branch of their activities, and need not clash with their regular duties, as adult education always takes the form of evening classes. Naturally, teaching hours, teachers' salaries and the participation of elementary-school teachers in the work, will have to be regulated in detail by administrative order.

All pupils, during their last school year, should learn the methods of teaching reading and writing, and leave school with the intention of spreading those accomplishments.

The "social centres" originally established by the Y.M.C.A. are doing very effective work in raising the level of adult education in China. They endeavour to foster adult education in different branches of science by collecting a large quantity of varied materials for object-lessons. In 1930-1931 the province of Kiangsu had 135 such centres, and Shekiang had 84. Apart from these centres, there are science and art museums, reading-rooms, cinemas, broadcasting courses, etc., specially designed for the education of adults.

These social centres and similar institutions are distinguished by the care with which they are organised, by their possession of material which is often difficult to bring together for the purpose of teaching by object-lessons, and by the high level reached by the work of the pupils, which is convincing evidence of the excellence of the teaching methods, and of the intelligence of the Chinese people. In the case, for example, of sculpture and drawing, especially

decorative drawing, the work done by the pupils at the evening classes is very little inferior to that done by art-school students. Moreover, all the adult education definitely bears in its material and in its achievements the genuine mark of Chinese inspiration, whereas the text-books and the work of pupils in schools for the young, especially secondary and higher schools, are open to the criticism that they follow foreign models to excess.

As regards improvements in adult education, the only suggestion that might be made is that it should be given a more practical turn and brought into closer contact with everyday life. Even now it is more an intellectual pastime or recreation, rather than a factor in the transformation of social life. But in view of the imperative and urgent necessity of modernising social and economic conditions in China, the main object of the education of the masses should be to point out the road leading to modernisation. It would not therefore be advisable, as is at present the practice, to explain everything in terms of the past, but rather to give prominence, as the Russians do when giving object-lessons, to the needs of the future. In China the future is too often neglected, both in the education of the young and in adult education. This is perhaps due to the highly developed historical sense of the Chinese; but, if China is to be rapidly modernised, men must look forward rather than back.

If this transformation is to be brought about, the new principles must be clearly formulated, and the social centres and other institutions for adult education reorganised in conformity with those principles. These educational centres must also be brought into touch with the workers' centres organised on modern and progressive lines (factories, workshops, business firms, railways, ports, farms, etc.). It is absolutely indispensable to bring the social centres out of their isolation and into contact with real life, both in respect of their organisation and of the principles by which they are inspired.

For the purposes of the work here under consideration, these criticisms of failure to keep in touch with everyday life are applicable even to the biggest centres, which rank in China as models of their kind. In small and unpretentious centres, the studies are often relatively more practical

SHANGHAI HIGH SCHOOL

Facing p. 10.

than in institutions organised on a large scale and commanding considerable resources and a large staff.

In this connection something may be said of the Mass Education Movement in the district of Ting-Hsien, in the province of Hopei, a movement which is well known throughout China.

The district of Ting-Hsien, with an area of 480 square miles and a population of 397,000 (68,000 families), has an organisation of quite an exceptional character in the shape of the so-called Mass Education Association. This Association employs some 200 persons, many of whom have had a university education. It has costly equipment and ample financial resources. Its annual budget amounts to some hundreds of thousands of Mexican dollars ($ Mex. 360,000 in 1931–32), whereas the budget of the education bureau is only some $ Mex. 59,000. The funds by which the Association is financed come mainly from the Boxer Indemnity, or, to be precise, from the China Foundation (some 60 per cent); from the public purse (some 25 per cent); from certain endowments, including one from the Rockefeller Foundation; and, lastly, from contributions by the inhabitants of the district (some 5 per cent).

The concentration of such large sums and of so many specialists in a single district is justified by the fact that the best methods of adult education and the forms of organisation most effective in the development of the work are studied there with a view to serving subsequently as models for the whole of China. It is only reasonable, therefore, to consider the activities of the Association in detail.

Such an accumulation of funds in one place may seem undesirable, particularly where public revenues drawn from the whole country are concerned. However, those at the head of the organisation consider that their present budget is quite inadequate, and that it should be immediately increased to $ Mex. 1,000,000 per annum. Such immense financial resources are liable to give the impression that, even if the experiment succeeds, the attempt to generalise is doomed to failure, owing to the inability of the population to pay such sums. There is likewise reason to fear that the leaders of the movement are not sufficiently in touch with other specialists, and thus lose the benefits of scientific criticism. The limited sphere of their activity

also prevents them from accurately estimating the big national problems and the general needs of the country. Further, the philanthropic character of their work in relation to the population of the district tends to give them too abstract an outlook on the questions which have to be solved.

These apprehensions seem to be justified by the facts. The principal centre of the work, in which the main buildings are situated and the majority of the workers are engaged, is the capital of the district, Tingchow. Isolated assistant workers and workers who travel from one village to another are also to be found in certain villages and at certain points of the district.

The work as a whole is divided and subdivided into sections and sub-sections. The chief branches are: (1) The campaign against illiteracy; (2) agriculture; (3) citizenship; (4) hygiene; (5) social service; (6) art education; (7) co-operative societies. There is also (*a*) research work, and (*b*) publicity work.

A close consideration of these many activities gives the impression that much money, labour and good will is being expended on a work of limited scope, incapable of producing a general economic or social plan. In the headquarters, for example, of the Literacy Section (i.e. the Section responsible for the campaign against illiteracy) a number of specialists are at work studying the Chinese alphabets and selecting the characters they consider necessary for everyday use. Various efforts are made by them to put their ideas concerning the simplification of the writing system in a concrete form; books for the use of adults are printed with these simplified signs, and even a newspaper *is published. There is an unquestionable danger here* of setting up a purely local system of writing, taking no account of efforts in the same direction elsewhere. We need not repeat what we have already said on this subject (pp. 40 *sqq.*). The Art Education Section is engaged on the solution of problems of an altogether secondary and unimportant character. Its members are trying to construct cheap—and very inferior—gramophone-cases, and the like, though there would have been a unique opportunity of reviving popular art and modernising it along artistic and practical lines. The Botanical Gardens and the Zoological Sections are also handling small details of merely local interest. Local

experiments in wheat selection, or a lantern to attract insects attacking vegetables, are made the subject of propaganda, with laborious calculations as to the advantages resulting from their widespread use; but the more important questions, such as the problem of communications, agricultural technique, electrification, the organisation of trade, etc., are entirely ignored.

The same criticism might be made as regards education in citizenship. Descriptions of model families are compiled and honorific distinctions are distributed, etc., while no attempt is made to lay down guiding principles for the reorganisation of family life and for the development of local self-administration.

The purpose of all these activities seems to be to idealise the present mode of living instead of working with a view to the future. The general impression remains that the vast resources here devoted to adult education might be employed much more usefully and economically if the really admirable social workers who are here displaying such unparalleled devotion were given responsible posts in the public education service. The importance of intensive local work is undeniable, but it necessarily implies, and that before anything else, far-reaching reforms in the central organisation. A decisive improvement in the Chinese economic system as a whole must precede any attempt to organise intensive local work along the lines—in themselves excellent—followed by those responsible for the Ting-Hsien experiment.

APPENDIX

CONCLUSIONS AND SUGGESTIONS FOR PREPARATORY MEASURES OF REFORM

Submitted to the Ministry of Education of Nanking by the Mission before its departure from China

THE educational system of a country is one of the strongest bonds of national unity. In China this fact has always been acknowledged, but the recent development under a variety of foreign influences has severely endangered the unity of the national culture. The starting-point of our proposals is the desire to re-establish this unity under the altered conditions of modern China, and to emphasise the national and social character of her educational system. To reach these aims it will be necessary to establish:—

1. *An efficient school administration*, to introduce and to manage modern education. The principal conditions of creating it are:—

(*a*) To strengthen the authority and the influence of the Minister of Education—

(i) by enlarging his sphere of action, especially in the field of appointments (the leading members of subordinate educational boards should be appointed by him after consultation with the local authorities or on their proposal);

(ii) by giving the Minister the support of representatives of the parts of the population interested in education (special commissions, consultative assemblies, in all grades of the administration, ex-officio members, appointed and chosen representatives of the teaching staff, parents and the general public).

(*b*) Unification of the administration.

The three grades: the Ministry, the educational offices of the respective Provinces, and those of the individual Districts (Hsien) form an administrative unit, the higher always controlling the lower, duties and powers being specialised but overlapping in administration as well as in finance. Higher education should be under the control of the Ministry; secondary schools of all kinds under the Provincial, and primary schools under the District, authorities.

2. *An efficient teaching profession.*

(*a*) The training of teachers must be reorganised. An equal standard should be fixed by State regulations all over the country for all teachers. State examination for teachers is recommended, in the first place, for those in secondary schools, and later for the remainder.

(*b*) The salaries of teachers of all grades should be fixed on a definite scale and regularly paid. The insecurity of position is the main reason of the present unrest in the teaching profession and its inefficiency. University chairs and teaching positions should be limited in number but stable. Appointments should be made only in accordance with qualifications, and dismissals only in case of proved insufficiency, or for disciplinary reasons. Appointments should be made by superior boards, not by presidents or principals.

3. *An efficient school system.*

(*a*) To make a really efficient educational system for the whole nation, primary education must be compulsory. Six years' compulsory education should be aimed at, but the present four years may be sanctioned, where local conditions make it unavoidable. Compulsion involves primary education being free, and no fees should be charged to children attending school. The primary school forms the basis of the whole system. Its development is for China, in the present situation, of paramount importance. The introduction of compulsory education must be carefully prepared by local surveys in the experimental districts or towns. The fundamental importance of primary education makes it desirable that the National Government and Provinces should contribute something towards its cost. Further, there should be a special Primary Education Department in the Ministry. There is room for a more efficient use of schools and teachers by increasing the number of pupils per teacher and school.

(*b*) Secondary education must not be a mere preparation for university studies, since only a small proportion of secondary school graduates enter institutions for Higher Education. Professional and Normal schools form an integral part of secondary education. Through the influence of the graduates of Normal schools the maintenance of unity between primary and secondary education is guaranteed. Professional teaching needs

to be intensified and developed, so that gifted students may proceed from the lower grades of professional education to the highest ones.

(*c*) Higher education needs to be greatly improved in quality. The number of Universities in certain cultural centres is at present excessive. It is unreasonable that there should be one academic teacher, whole-time or part-time, to every five students. If several competing Universities in one place cannot be completely unified, co-operation must be aimed at to check wasteful competition. No private University or College should be registered without being pledged to such co-operation in the service of an efficient national school system.

4. *Efficient teaching.*

(*a*) All teachers must be masters of their subjects, and not only of the methods of teaching them. The historical or psychological premises of education are valuable, but their study ought never to lead to neglect of the subject-matter itself.

(*b*) Teaching should be based to a less extent on text-books, and more largely on experiment and practical work (especially in science) and on books of reference (in history and languages).

(*c*) In all schools the hours of teaching shall be diminished. The hours devoted to laboratory or manual work shall be relatively enlarged.

(*d*) It is necessary that the technical terms in science should be fixed, and that foreign text-books should disappear from secondary schools; but the study of European languages (English) must be sufficient to enable the graduates of the general branch of secondary schools to use modern scientific literature in the Universities. The fixation of the scientific technical terms in Chinese is one of the most urgent tasks for the initiative of the Ministry (Special Commission with European experts).

(*e*) The Government must ensure that different scientific establishments are adequately equipped with apparatus made in China, and constructed either in private or public establishments.

URGENT PREPARATORY MEASURES

1. As soon as possible a special commission should be sent to Europe to study the organisation of school administration in the different European countries. Those sent should be men of experience, who are expected to be afterwards the leaders of the reorganisation.

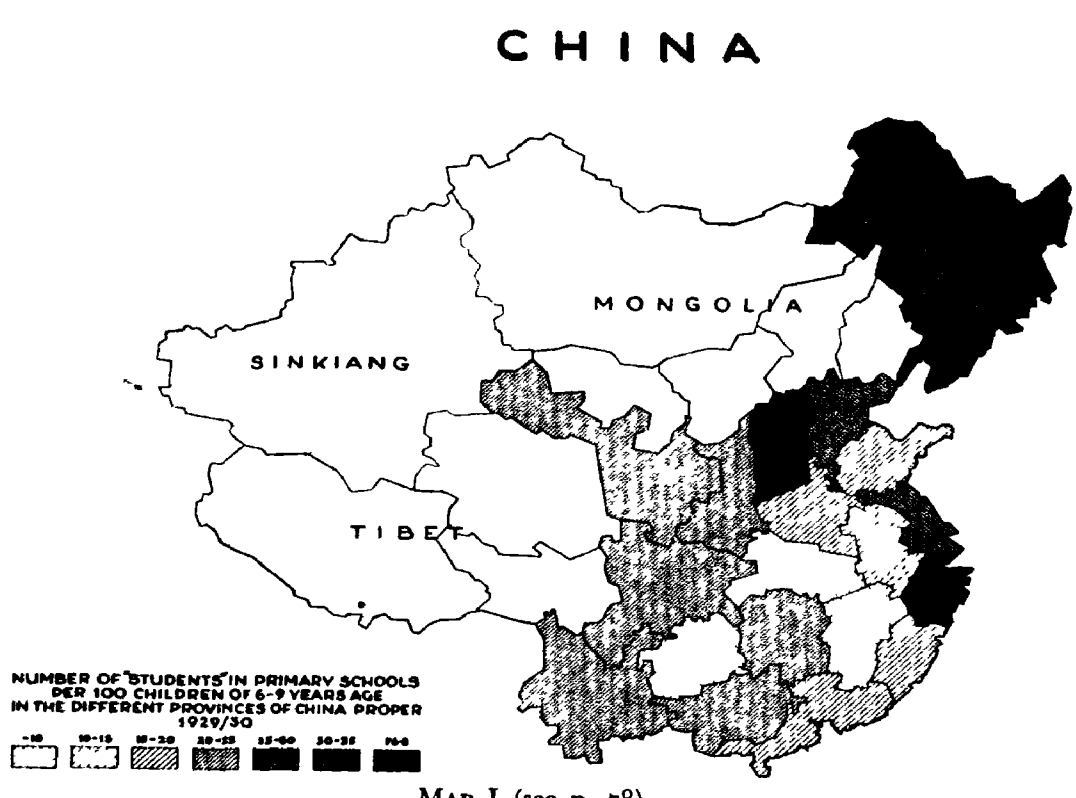
We think it more advisable to make Chinese experts acquainted with European conditions and administrative methods than merely to invite European advisers to Nanking; but should the Ministry wish to obtain the assistance of a competent European administrator, the League of Nations will certainly be pleased to help in finding an adequate expert, who not only should be trained in one or the other branch of educational administration, but must possess a wide and thorough practical experience. Such an expert, if he comes at all, should be placed at the disposal of the Chinese Government for at least one year.

2. We recommend, further, that Chinese specialists be sent to Europe to study text-books, curricula, etc.

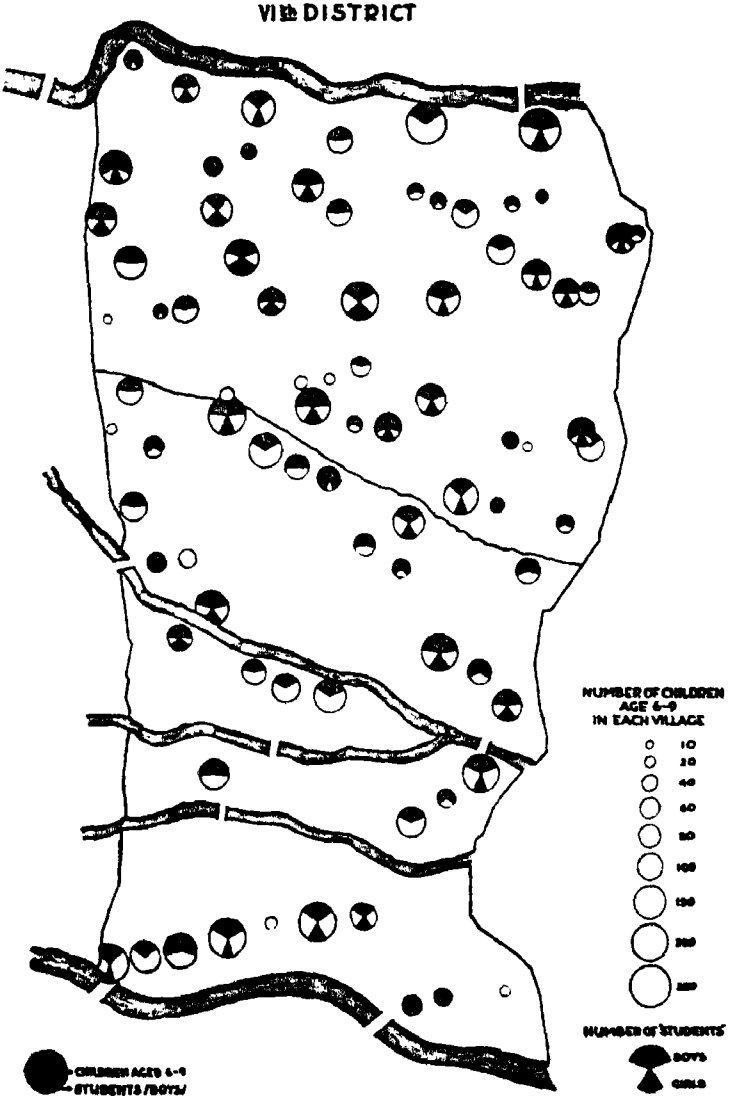
3. The preparation of the local surveys required for introducing compulsory education in the districts selected for the first experiments should be undertaken. Psychological preparation of the population by propaganda against illiteracy should also be carried forward.

4. The regulations required to set on foot for the different administrative commissions should be drafted. A Universities Council should be established, composed of leaders in academic and public life nominated by the Ministry, which should prepare schemes for the reorganisation of University education.

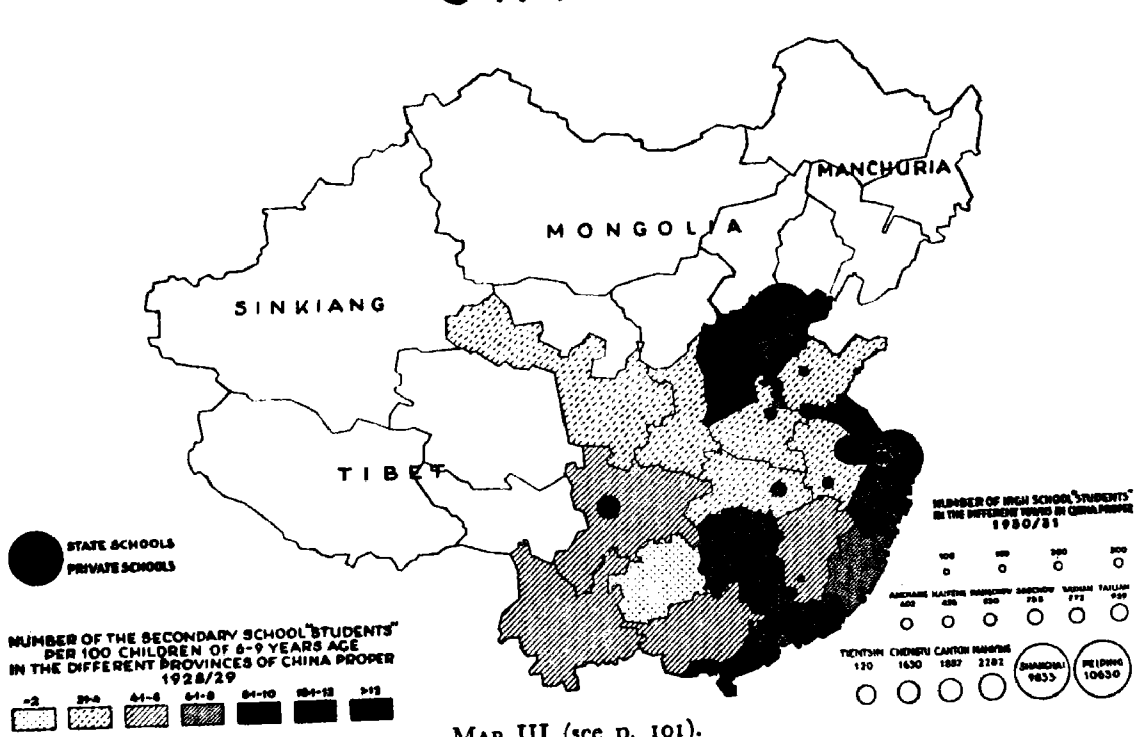
5. The problem of fixing the technical terms in science should be taken up.


CHINA
MONGOLIA
SINKIANG
TIBET
NUMBER OF STUDENTS IN PRIMARY SCHOOLS
PER 100 CHILDREN OF 6-9 YEARS AGE
IN THE DIFFERENT PROVINCES OF CHINA PROPER
1929/30

MAP I (see p. 78).



MAP II (see p. 84).



MAP III (see p. 101).